SAMSUNG

LFD DISPLAY
User Manual

UE46C UE55C

The color and the appearance may differ depending on the product, and the specifications are subject to change without prior notice to improve the performance.

BN46-00333B-00

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Chapter 01
Before Using the Product

Copyright

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Safety Precautions

Caution

RISK OF ELECTRIC SHOCK DO NOT OPEN

Caution : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. (OR BACK)

THERE ARE NO USER SERVICEABLE PARTS INSIDE.

REFER ALL SERVICING TO QUALIFIED PERSONNEL.

This symbol indicates that high voltage is present inside.

It is dangerous to make any kind of contact with any internal part of this product.

This symbol alerts you that important literature concerning operation and maintenance has been included with this product.

Symbols

Warning

A serious or fatal injury may result if instructions are not followed.

Caution

Personal injury or damage to properties may result if instructions are not followed.

Activities marked by this symbol are prohibited.

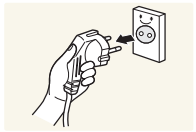
Instructions marked by this symbol must be followed.

Cleaning

— Exercise care when cleaning as the panel and exterior of advanced LCDs are easily scratched.

— Take the following steps when cleaning.

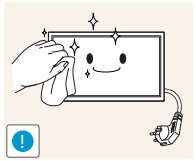
— The following images are for reference only. Real-life situations may differ from what is shown in the images.



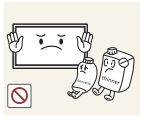
1 Power off the product and computer.

2 Disconnect the power cord from the product.

— Hold the power cable by the plug and do not touch the cable with wet hands. Otherwise, an electric shock may result.

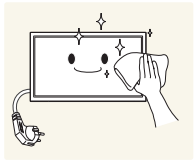


3 Wipe the product with a clean, soft and dry cloth.

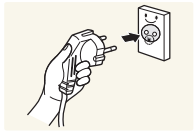


- Do not use detergents that contain alcohol, solvent or surface-active agents.

- Do not spray water or detergent directly on the product.



4 Wet a soft and dry cloth in water and wring thoroughly to clean the exterior of the product.



5 Connect the power cord to the product when cleaning is finished.

6 Power on the product and computer.

Storage

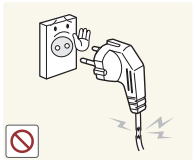
High-glossy models can develop white stains on the surface if an ultrasonic wave humidifier is used nearby.

— Contact Customer Service Center if the inside of the product needs cleaning (service fee will be charged).

Electricity and Safety

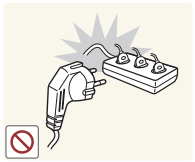
— The following images are for reference only. Real-life situations may differ from what is shown in the images.

Warning



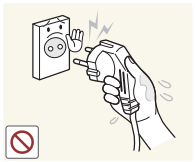
Do not use a damaged power cord or plug, or a loose power socket.

- An electric shock or fire may result.

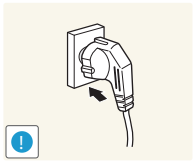


Do not use multiple products with a single power socket.

- Overheated power sockets may cause a fire.

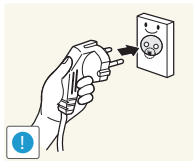


Do not touch the power plug with wet hands. Otherwise, an electric shock may result.



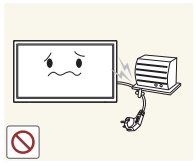
Insert the power plug all the way in so it is not loose.

- An unsecure connection may cause a fire.



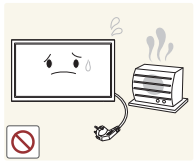
Connect the power plug to a grounded power socket (type 1 insulated devices only).

- An electric shock or injury may result.



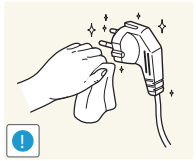
Do not bend or pull the power cord with force. Be careful not to leave the power cord under a heavy object.

- Damage to the cord may result in a fire or electric shock.



Do not place the power cord or product near heat sources.

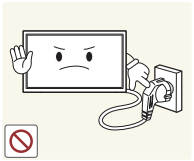
- A fire or electric shock may result.



Clean any dust around the pins of the power plug or the power socket with a dry cloth.

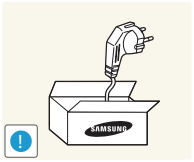
- A fire may result.

Caution



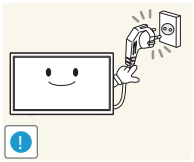
Do not disconnect the power cord while the product is being used.

- The product may become damaged by an electric shock.



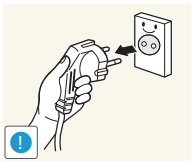
Only use the power cord provided with your product by Samsung. Do not use the power cord with other products.

- A fire or electric shock may result.



Keep the power socket where the power cord is connected unobstructed.

- The power cord must be disconnected to cut off power to the product when an issue occurs.
- Note that the product is not completely powered down by using only the power button on the remote.



Hold the plug when disconnecting the power cord from the power socket.

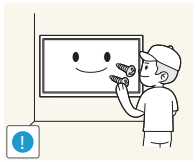
- An electric shock or fire may result.

Installation

Warning

DO NOT PLACE CANDLES, INSECT REPELLANTS OR CIGARETTES ON TOP OF THE PRODUCT. DO NOT INSTALL THE PRODUCT NEAR HEAT SOURCES.

- A fire may result.

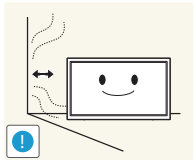


Have a technician install the wall-mount hanger.

- Installation by an unqualified person can result in an injury.
- Only use approved cabinets.

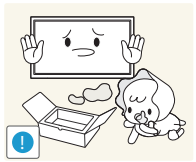
Do not install the product in poorly ventilated spaces such as a bookcase or closet.

- An increased internal temperature may cause a fire.



Install the product at least 10cm away from the wall to allow ventilation.

- An increased internal temperature may cause a fire.

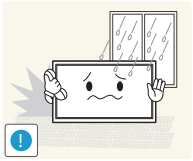


Keep the plastic packaging out of the reach of children.

- Children may suffocate.

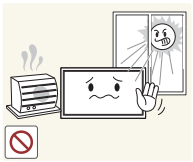
Do not install the product on an unstable or vibrating surface (insecure shelf, sloped surface, etc.)

- The product may fall and become damaged and/or cause an injury.
- Using the product in an area with excess vibration may damage the product or cause a fire.



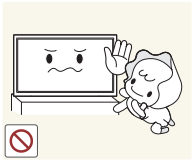
Do not install the product in a vehicle or a place exposed to dust, moisture (water drips, etc.), oil, or smoke.

- A fire or electric shock may result.



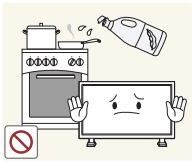
Do not expose the product to direct sunlight, heat, or a hot object such as a stove.

- The product lifespan may be reduced or a fire may result.



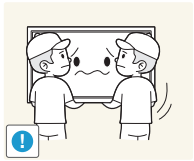
Do not install the product within the reach of young children.

- The product may fall and injure children.
- As the front is heavy, install the product on a flat and stable surface.



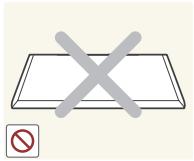
Edible oil, such as soybean oil, can damage or deform the product. Do not install the product in a kitchen or near a kitchen counter.

Caution



Do not drop the product while moving.

- Product failure or personal injury may result.

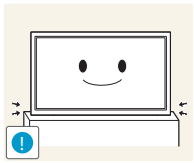


Do not set down the product on its front.

- The screen may become damaged.

When installing the product on a cabinet or shelf, make sure that the bottom edge of the front of the product is not protruding.

- The product may fall and become damaged and/or cause an injury.
- Install the product only on cabinets or shelves of the right size.



Set down the product gently.

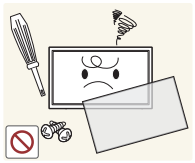
- Product failure or personal injury may result.

Installing the product in an unusual place (a place exposed to a lot of fine particles, chemical substances or extreme temperatures, or an airport or train station where the product should operate continuously for an extended period of time) may seriously affect its performance.

- Be sure to consult Samsung Customer Service Center if you want to install the product at such a place.

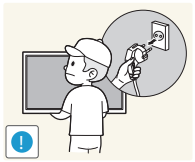
Operation

Warning



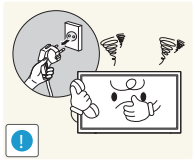
There is a high voltage inside the product. Never disassemble, repair or modify the product yourself.

- A fire or electric shock may result.
- Contact Samsung Customer Service Center for repairs.



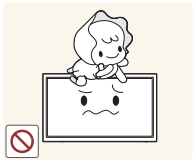
Before moving the product, turn off the power switch and disconnect the power cable and all other connected cables.

- Damage to the cord may result in a fire or electric shock.



If the product generates abnormal sounds, a burning smell or smoke, disconnect the power cord immediately and contact Samsung Customer Service Center.

- An electric shock or fire may result.

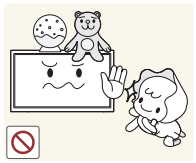


Do not let children hang from the product or climb on top of it.

- Children may become injured or seriously harmed.

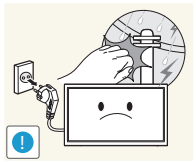
If the product is dropped or the outer case is damaged, turn off the power switch and disconnect the power cord. Then contact Samsung Customer Service Center.

- Continued use can result in a fire or electric shock.



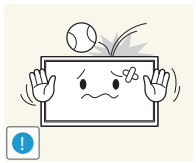
Do not leave heavy objects or items that children like (toys, sweets, etc.) on top of the product.

- The product or heavy objects may fall as children try to reach for the toys or sweets resulting in a serious injury.



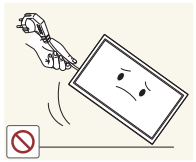
During a lightning or thunderstorm, power off the product and remove the power cable.

- A fire or electric shock may result.



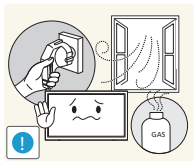
Do not drop objects on the product or apply impact.

- A fire or electric shock may result.



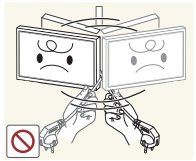
Do not move the product by pulling the power cord or any cable.

- Product failure, an electric shock or fire may result from a damaged cable.



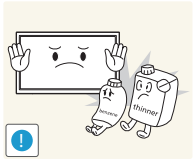
If a gas leakage is found, do not touch the product or power plug. Also, ventilate the area immediately.

- Sparks can cause an explosion or fire.



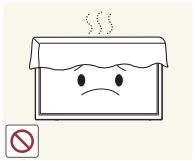
Do not lift or move the product by pulling the power cord or any cable.

- Product failure, an electric shock or fire may result from a damaged cable.



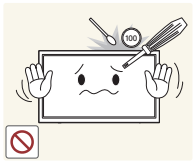
Do not use or keep combustible spray or an inflammable substance near the product.

- An explosion or fire may result.



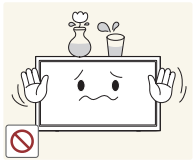
Ensure the vents are not blocked by tablecloths or curtains.

- An increased internal temperature may cause a fire.



Do not insert metallic objects (chopsticks, coins, hairpins, etc) or objects that burn easily (paper, matches, etc) into the product (via the vent or input/output ports, etc).

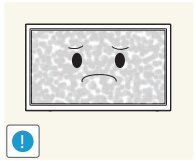
- Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Center.
- Product failure, an electric shock or fire may result.



Do not place objects containing liquid (vases, pots, bottles, etc) or metallic objects on top of the product.

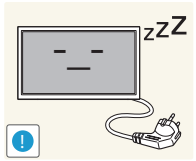
- Be sure to power off the product and disconnect the power cord when water or other foreign substances have entered the product. Then contact Samsung Customer Service Center.
- Product failure, an electric shock or fire may result.

Caution



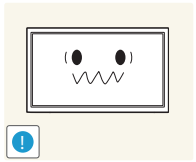
Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.

- Activate power-saving mode or a moving-picture screen saver if you will not be using the product for an extended period of time.



Disconnect the power cord from the power socket if you do not plan on using the product for an extended period of time (vacation, etc).

- Dust accumulation combined with heat can cause a fire, electric shock or electric leakage.

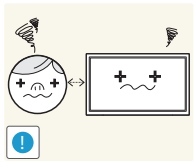


Use the product at the recommended resolution and frequency.

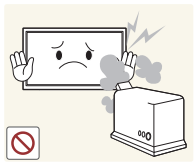
- Your eyesight may deteriorate.

Do not hold the product upside-down or move it by holding the stand.

- The product may fall and become damaged or cause an injury.

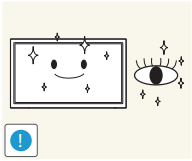


Looking at the screen too close for an extended period of time can deteriorate your eyesight.



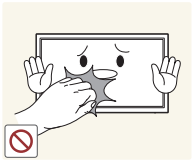
Do not use humidifiers or stoves around the product.

- A fire or electric shock may result.

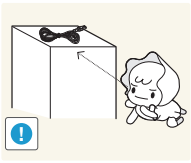


Rest your eyes for more than 5 minutes for every 1 hour of product use.

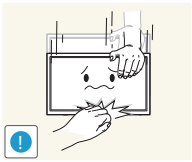
- Eye fatigue will be relieved.



Do not touch the screen when the product has been turned on for an extended period of time as it will become hot.



Store small accessories out of the reach of children.



Exercise caution when adjusting the product angle or stand height.

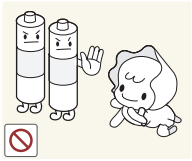
- Your hand or finger may get stuck and injured.
- Tilting the product at an excessive angle may cause the product to fall and an injury may result.

Do not place heavy objects on the product.

- Product failure or personal injury may result.

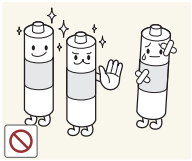
When using headphones or earphones, do not turn the volume too high.

- Having the sound too loud may damage your hearing.



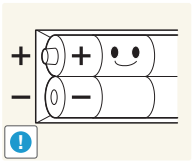
Be careful that children do not place the battery in their mouths when removed from the remote control. Place the battery in a location that children or infants cannot reach.

- If children have had the battery in their mouths, consult your doctor immediately.



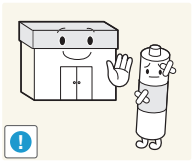
When replacing the battery, insert it with the right polarity (+, -).

- Otherwise, the battery may become damaged or it may cause fire, personal injury or damage due to leakage of the internal liquid.



Use only the specified standardized batteries, and do not use a new battery and a used battery at the same time.

- Otherwise, the batteries may be damaged or cause fire, personal injury or damage due to a leakage of the internal liquid.



The batteries (and rechargeable batteries) are not ordinary refuse and must be returned for recycling purposes. The customer is responsible for returning the used or rechargeable batteries for recycling.

- The customer can return used or rechargeable batteries to a nearby public recycling Center or to a store selling the same type of the battery or rechargeable battery.

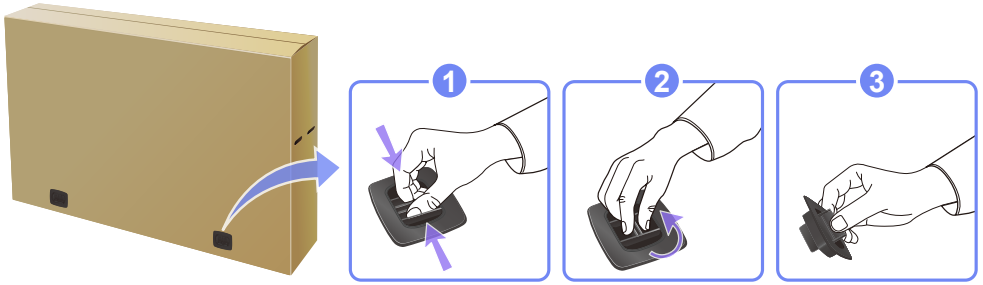
Chapter 02
Preparations

Checking the Contents

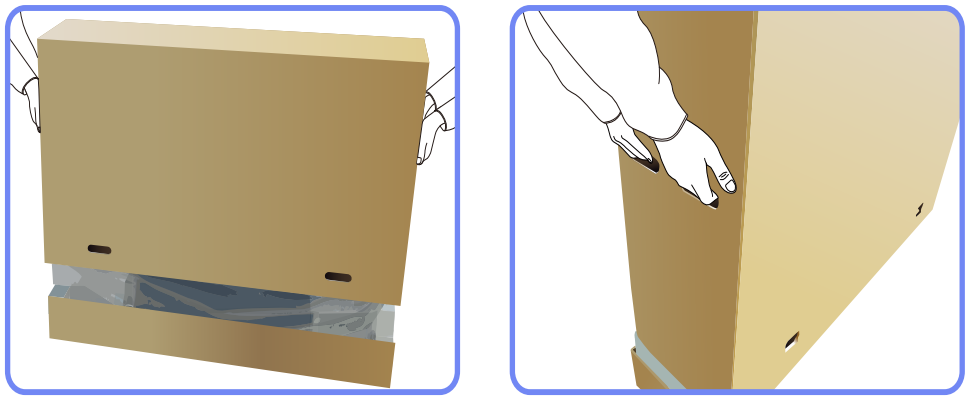
Removing the Packaging

— The following images are for reference only. Real-life situations may differ from what is shown in the images.

1 Remove the black locking device at the bottom of the box.

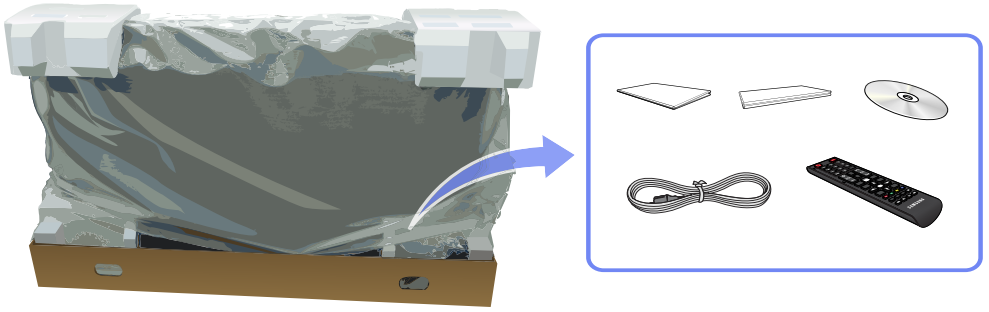


2 Using the grooves in the box, lift and remove the top of the box.



3 Check the components and remove the styrofoam and plastic bag.

— The appearance of actual components may differ from the image shown.



4 Store the box in a dry area so that it can be used when moving the product in the future.

Checking the Components

- Contact the vendor where you purchased the product if any components are missing.
- The appearance of the components and items sold separately may differ from the image shown.
- A stand is not provided with the product. To install a stand, you can purchase one separately.

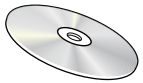
Components

— Components may differ in different locations.

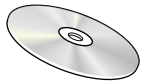
Quick setup guide

Warranty card

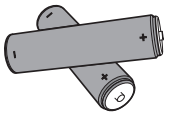
(Not available in some locations)



User manual



MagicInfo Lite Edition Software CD

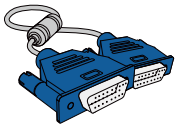


Batteries (P.22)

(Not available in some locations)

Remote Control (P.21)

Power cord



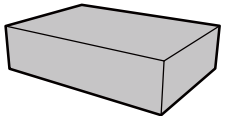
D-SUB cable (P.43)

Holder-Ring (4EA)

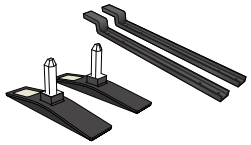
(BN61-07295A)

Items sold separately

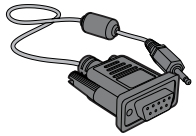
– The following items can be purchased at your nearest retailer.



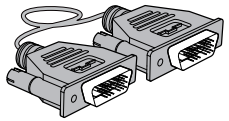
Wall-mount Kit



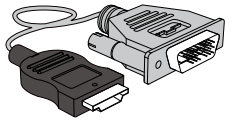
Stand



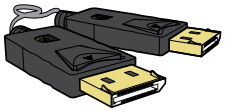
RS232C-Stereo cable (P.56)



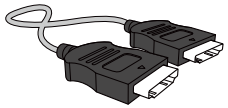
DVI cable (P.43)



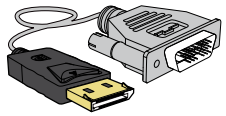
HDMI-DVI cable (P.44)



DP cable (P.45)

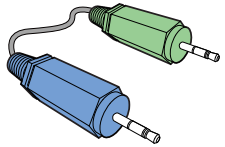


HDMI cable (P.44)

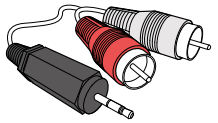


DP-DVI cable

(Used to connect a network box)



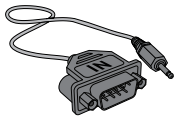
Stereo cable (P.24)



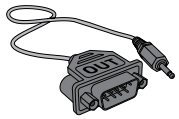
RCA stereo cable (P.49)

– The RS232C adapter can be used to connect to another monitor using the D-SUB (9-pin) type RS232C cable.

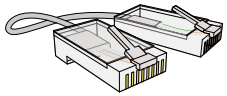
– Ensure you connect each of the adapters to the correct RS232C IN or OUT port on the product.



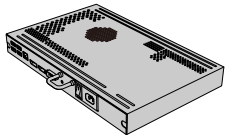
RS232C(IN) adapter



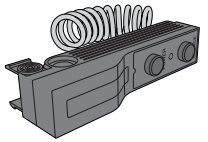
RS232C(OUT) adapter



LAN cable



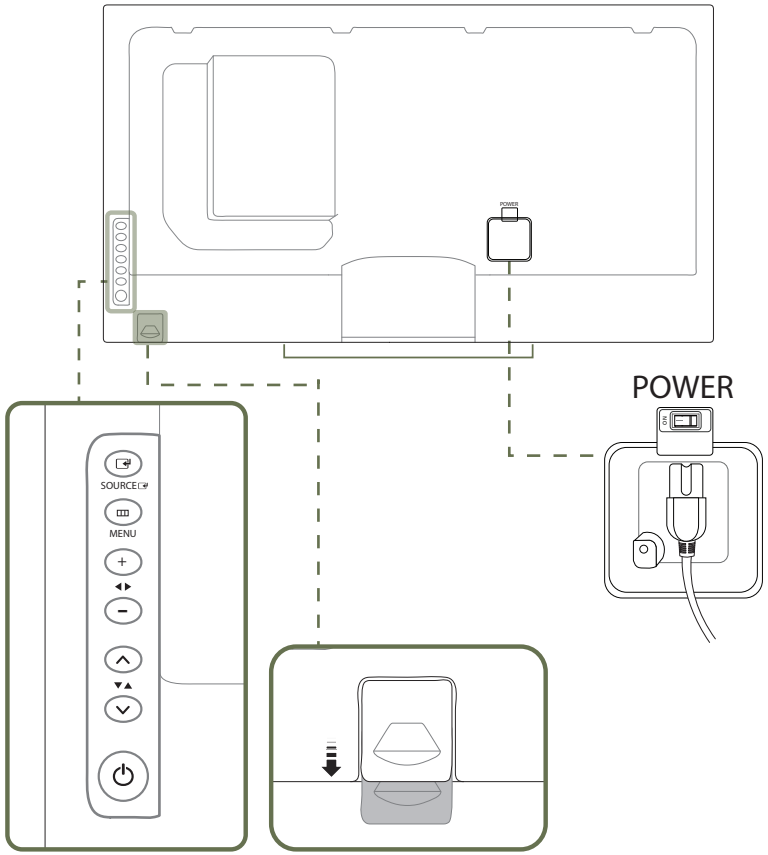
Network Box



External sensor Kit (P.24)

Parts

Control Panel

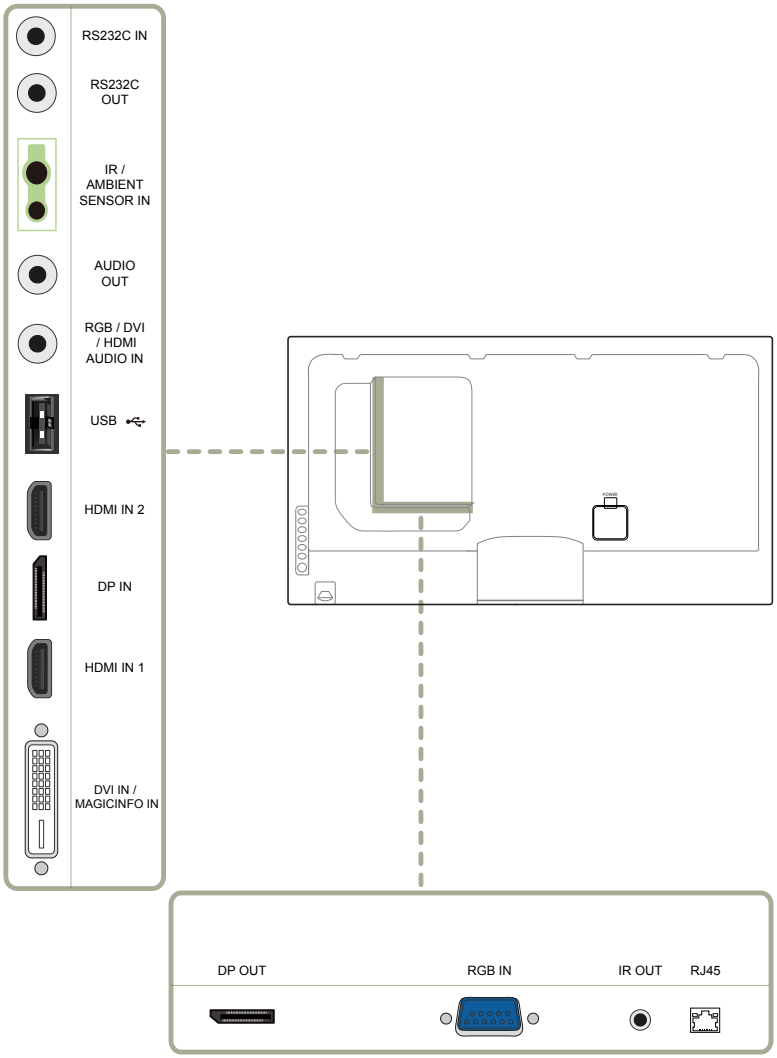


— The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.

Buttons	Description
SOURCE	Selects the input source that an external device is connected to.
MENU	Opens the on-screen menu and exits from the menu. Also use to exit the OSD menu or return to the previous menu.
+ ◀▶ −	Moves from one menu item to another horizontally or adjusts selected menu values. Adjusts the audio volume.
▲ ▼▲ ▼	Moves from one menu item to another vertically or adjusts selected menu values.
⏻	Use this button for turning the Display on and off.
Remote sensor	Receives signals from the remote. To control the remote control in front of the product, lower the remote control sensor in the direction of the arrow (indicated in the zoomed-in image on the previous page). — Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.

Reverse Side

The color and shape of parts may differ from what is shown. Specifications are subject to change without notice to improve quality.



Port	Description
RS232C IN	Connects to MDC using an RS232C-stereo adapter.
RS232C OUT	
IR / AMBIENT SENSOR IN	Supplies power to the external sensor board or receives the light sensor signal.
AUDIO OUT	Connects to the audio of a source device.
RGB / DVI / HDMI AUDIO IN	Receives sound from a PC via an audio cable.
USB	Connect to a USB memory device.
DP IN	Connects to a PC using a DP cable.
HDMI IN 1, HDMI IN 2	Connects to a source device using an HDMI cable.
DVI IN / MAGICINFO IN	DVI IN: Connects to a source device using a DVI cable or HDMI-DVI cable. MAGICINFO IN: To use MagicInfo, make sure to connect the DP-DVI cable.
DP OUT	Connects to another product using a DP cable.
RGB IN	Connects to a source device using a D-SUB cable.
IR OUT	Receives the remote control signal via the external sensor board and outputs the signal via LOOP OUT.
RJ45	Connects to MDC using a LAN cable.

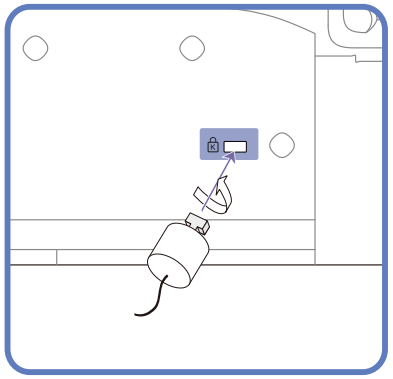
Anti-theft Lock

— An anti-theft lock allows you to use the product securely even in public places.

— The locking device shape and locking method depend on the manufacturer. Refer to the user guide provided with your anti-theft locking device for details.

— Stand: Sold separately

To lock an anti-theft locking device:



1 Fix the cable of your anti-theft locking device to a heavy object such as a desk.

2 Put one end of the cable through the loop on the other end.

3 Insert the locking device into the anti-theft lock slot at the back of the product.

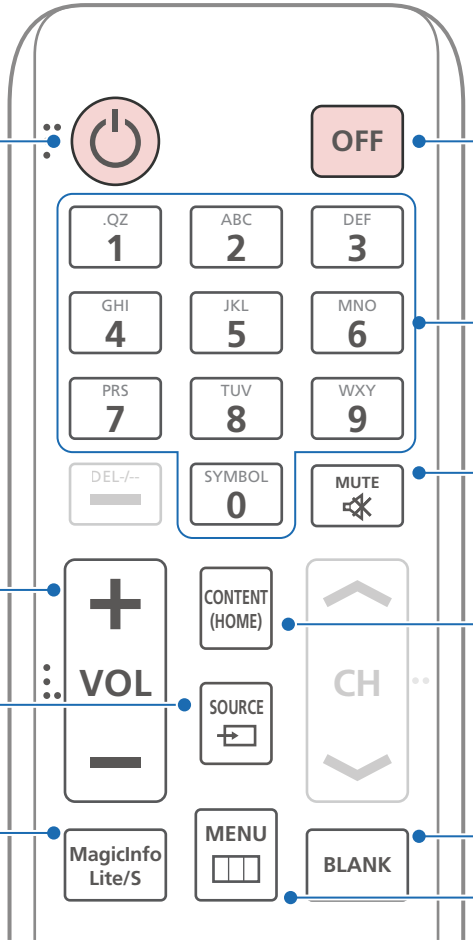
4 Lock the locking device.

- An anti-theft locking device can be purchased separately.
- Refer to the user guide provided with your anti-theft locking device for details.
- Anti-theft locking devices can be purchased at electronics retailers or online.

Remote Control

— Using other display devices in the same space as the remote control of this product can cause the other display devices to be inadvertently controlled.

— A button without a description in the image below is not supported on the product.



Power on the product.

Power off the product.

Number buttons
Enter the password in the OSD menu.

Mute the sound.
Unmuting the sound: Press MUTE again or press the volume control(+ VOL -) button.

Adjust the volume.

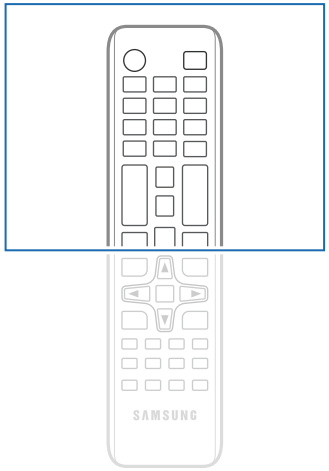
Contents Home Launch Button.

Change the input source.

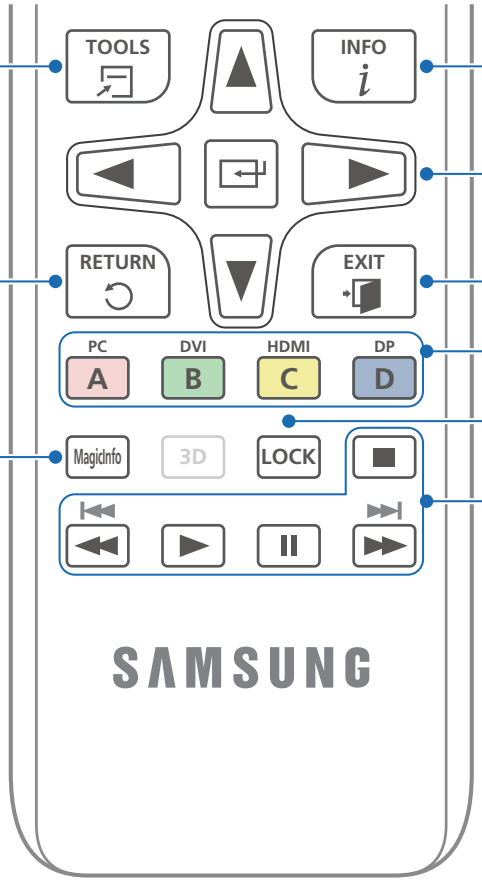
Temporarily turn off the video and mute the audio.
Disabling the BLANK function
- Press BLANK one more time.
- Press SOURCE.
- Turn the product off and then on again.

MagicInfo Lite, **MagicInfo Premium S**, **MagicInfo Videowall S** Launch Button.
The buttons can vary according to the **Player Mode** settings.

Display or hide the onscreen display menu, or return to the previous menu.



– Remote control button functions may differ for different products.



Quickly select frequently used functions.

Display information about the current input source.

Move to the upper, lower, left or right menu, or adjust an option's setting.

Confirm a menu selection.

Return to the previous menu.

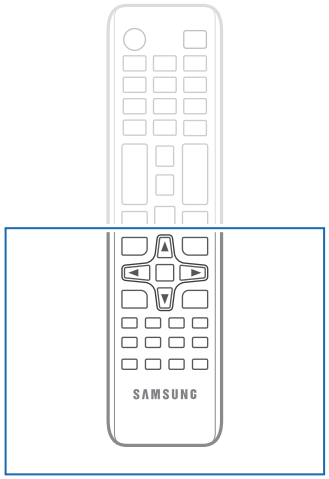
Exit the current menu.

Manually select a connected input source from **PC**, **DVI**, **HDMI**, or **DisplayPort**.

It sets safe lock function.

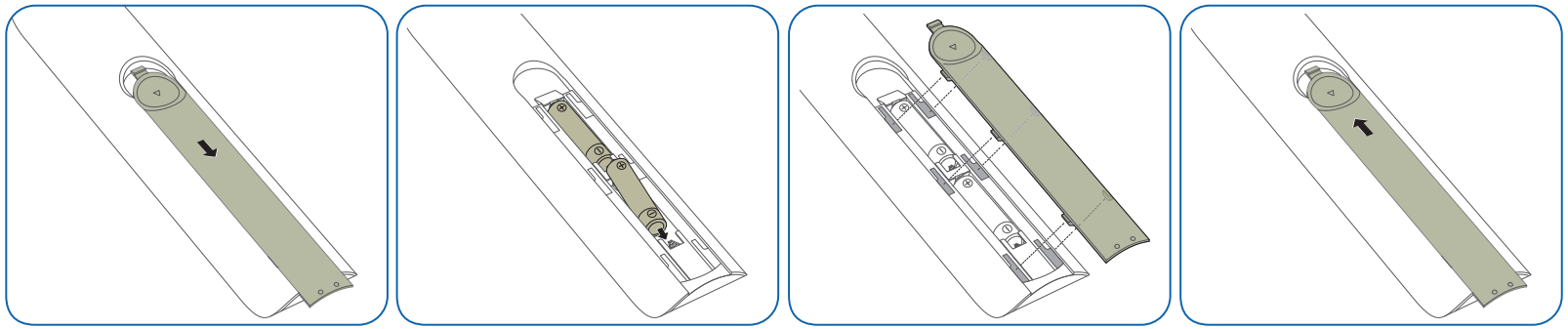
Use these buttons in **Videos**, **Photos**, **Music** and **Anynet+** modes.

MagicInfo Quick Launch Button.
This button is disabled for products that do not support MagicInfo.
MagicInfo can only be enabled when a network box is connected.

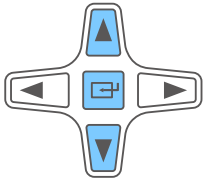
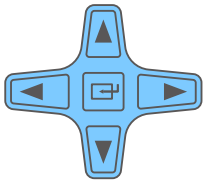
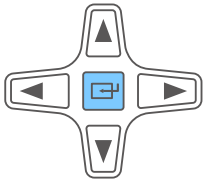


– Remote control button functions may differ for different products.

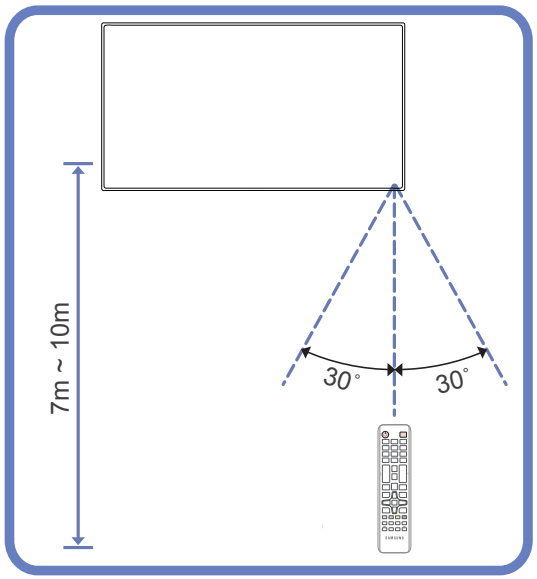
To place batteries in the remote control



Adjusting the OSD with the Remote Control

Buttons	Description
	1 Open the OSD menu.
	2 Select from **Picture**, **Sound**, **Network**, **System** or **Support** in the displayed OSD menu screen.
	3 Change settings as desired.
	4 Finish setting.
	5 Close the onscreen display (OSD) menu.

Remote Control Reception Range



Use the remote control within 7m to 10m from the sensor on the product at an angle of 30° from the left and right.

- Store used batteries out of reach of children and recycle.
- Do not use a new and used battery together. Replace both batteries at the same time.
- Remove batteries when the remote control is not to be used for an extended period of time.

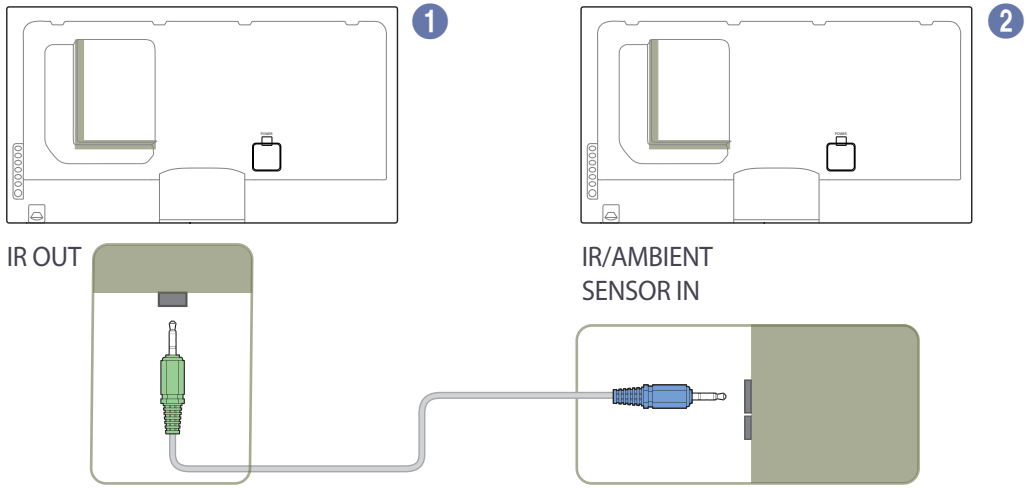
Connection Using an IR Stereo Cable (sold separately)

Turn off the device before connecting the External Sensor Kit. After it is connected, turn on the device.

Controlling more than one display product using your remote control

- Connect the **IR OUT** port on the product to the **IR / AMBIENT SENSOR IN** port on the other display product using the dedicated stereo cable.
- A command sent from the remote control pointed at product 1 will be received by both display products 1 and 2.

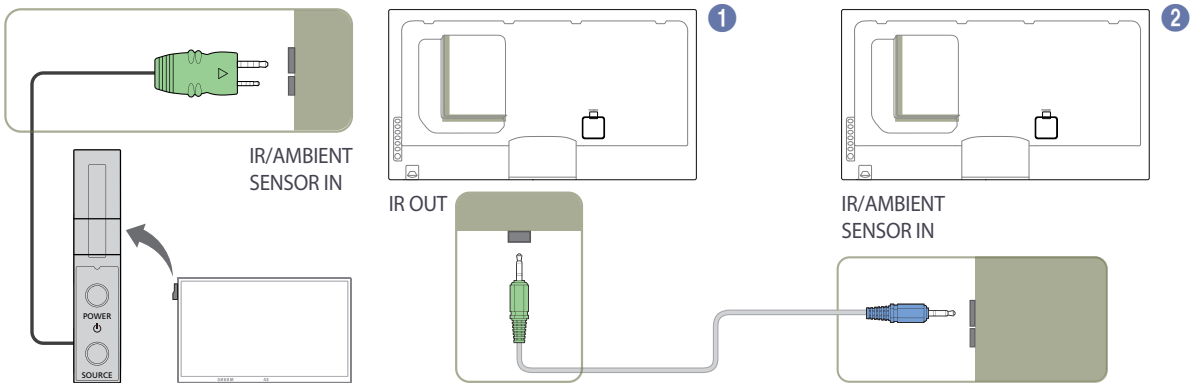
— The appearance may differ depending on the product.



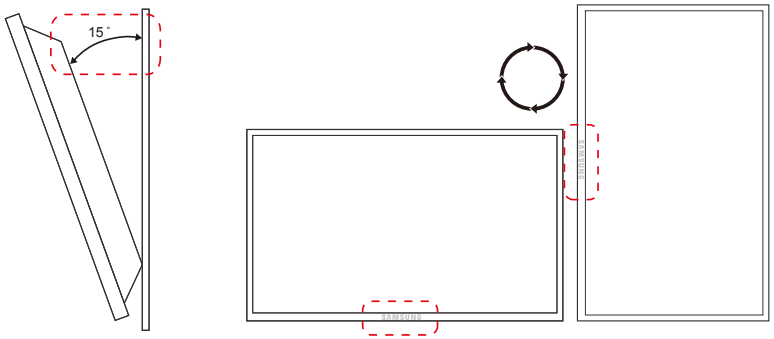
Controlling more than one display product using an external sensor kit (sold separately)

- A command sent from the remote control pointed at product 1 (to which the external sensor kit is connected) will be received by both display products 1 and 2.

— The appearance may differ depending on the product.



Before Installing the Product (Installation Guide)



To prevent injury, this apparatus must be securely attached to the floor/wall in accordance with the installation instructions.

- Ensure that an authorized installation company installs the wall mount.
- Otherwise, it may fall and cause personal injury.
- Make sure to install the specified wall mount.

Tilting Angle and Rotation

— Contact Samsung Customer Service Center for further details.

- The product can be tilted at a maximum angle of 15˚ from a perpendicular wall surface.
- To use the product vertically (portrait), turn it clockwise so that the LED is pointing down.

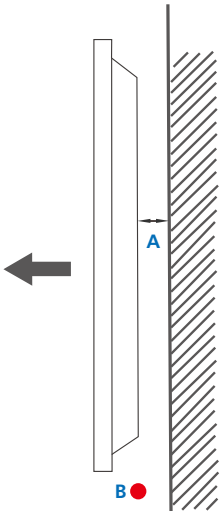


Figure 1.1 Side view

Ventilation

Installation on a Perpendicular Wall

A Minimum 40 mm

B Ambient temperature: Under 35˚C

- When installing the product on a perpendicular wall, allow at least 40 mm of space between the product and wall surface for ventilation and ensure that the ambient A temperature is kept below 35˚C.

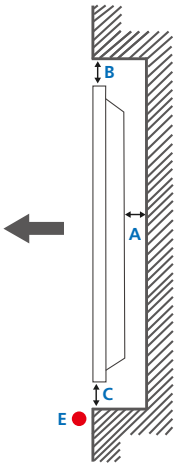
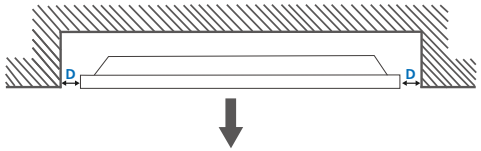


Figure 1.2 Side view

Figure 1.3 Side view



Installation on an Indented Wall

— Contact Samsung Customer Service Center for further details.

Plane view

A Minimum 40 mm

B Minimum 70 mm

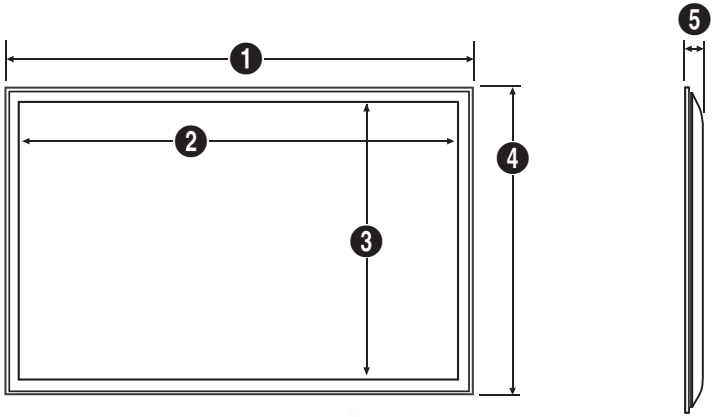
C Minimum 50 mm

D Minimum 50 mm

E Ambient temperature: Under 35˚C

— When installing the product on an indented wall, allow at least the space specified above between the product and wall for ventilation and ensure that the ambient temperature is kept below 35˚C.

Dimensions

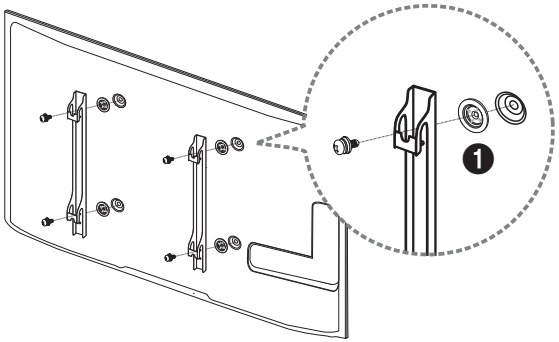


Unit: mm (inches)

Model name	1	2	3	4	5
UE46C	1030.3 (40.6)	1018.08 (40.1)	572.67 (22.5)	584.8 (23.0)	29.9 (1.2)
UE55C	1221.8 (48.1)	1209.6 (47.6)	680.4 (26.8)	692.6 (27.3)	29.9(1.2)

— All drawings are not necessarily to scale. Some dimensions are subject to change without prior notice.
Refer to the dimensions prior to performing installation of your product. Not responsible for typographical or printed errors.

Installing the Wall Mount



Preparing before installing Wall-Mount

To install a wall-mount from another manufacturer, use the Holder-Ring(❶).

Installing the Wall Mount Kit

The wall mount kit (sold separately) allows you to mount the product on the wall.

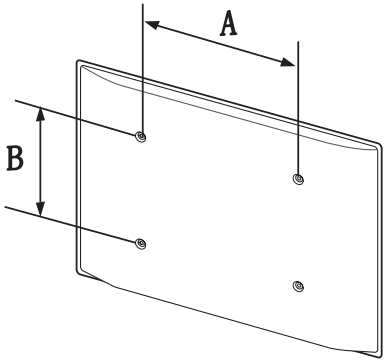
For detailed information on installing the wall mount, see the instructions provided with the wall mount.

We recommend you contact a technician for assistance when installing the wall mount bracket.

Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.

Wall Mount Kit Specifications (VESA)

— Install your wall mount on a solid wall perpendicular to the floor. Before attaching the wall mount to surfaces other than plaster board, please contact your nearest dealer for additional information.
If you install the product on a slanted wall, it may fall and result in severe personal injury.



- Samsung wall mount kits contain a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws that are longer than the standard length or do not comply with the VESA standard screw specifications. Screws that are too long may cause damage to the inside of the product.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
- Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
- Do not mount the product at more than a 15 degree tilt.
- Always have two people mount the product on a wall.
- Standard dimensions for wall mount kits are shown in the table below.

Unit: mm (inches)

Model name	VESA screw hole specs (A * B) in millimeters	Standard Screw	Quantity
UE46C UE55C	400 × 400 (15.7 × 15.7)	M8	4

— Do not install your Wall Mount Kit while your product is turned on. It may result in personal injury due to electric shock.

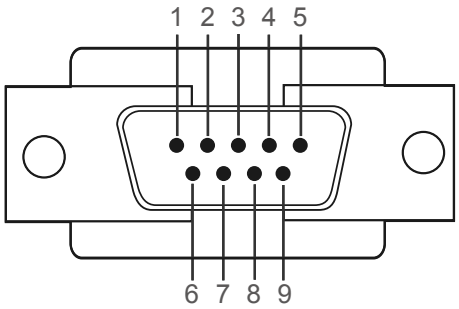
Remote Control (RS232C)

Cable Connection

RS232C Cable

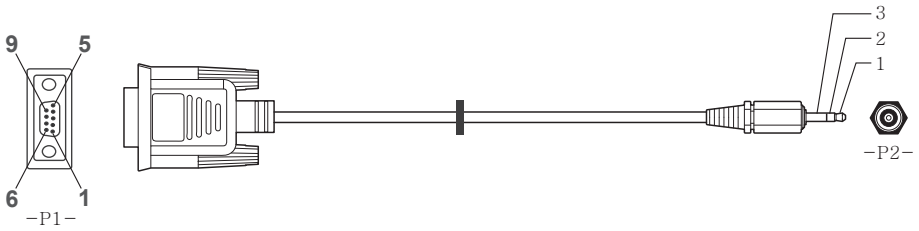
Interface	RS232C (9 pins)
Pin	TxD (No.2), RxD (No.3), GND (No.5)
Bit rate	9600 bps
Data bits	8 bit
Parity	None
Stop bit	1 bit
Flow control	None
Maximum length	15 m (only shielded type)

- Pin assignment



Pin	Signal
1	Detect data carrier
2	Received data
3	Transmitted data
4	Prepare data terminal
5	Signal ground
6	Prepare data set
7	Send request
8	Clear to send
9	Ring indicator

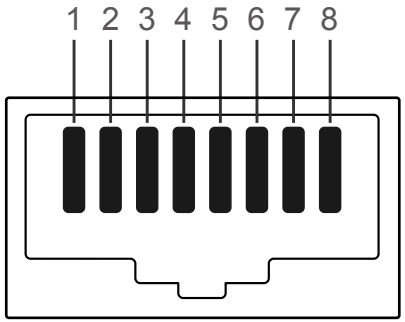
- RS232C cable
  Connector: 9-Pin D-Sub to Stereo Cable



-P1-		-P1-		-P2-		-P2-
Female	**Rx**	**2**	**--------->**	**3**	**Tx**	**STEREO**
	Tx	**3**	**<---------**	**2**	**Rx**	**PLUG**
	Gnd	**5**	**----------**	**5**	**Gnd**	**(3.5ø)**

LAN Cable

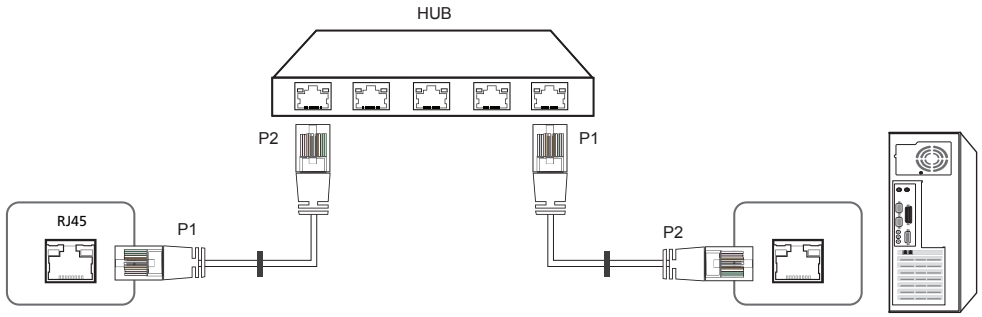
- Pin assignment



Pin No	Standard Color	Signal
1	White and orange	TX+
2	Orange	TX-
3	White and green	RX+
4	Blue	NC
5	White and blue	NC
6	Green	RX-
7	White and brown	NC
8	Brown	NC

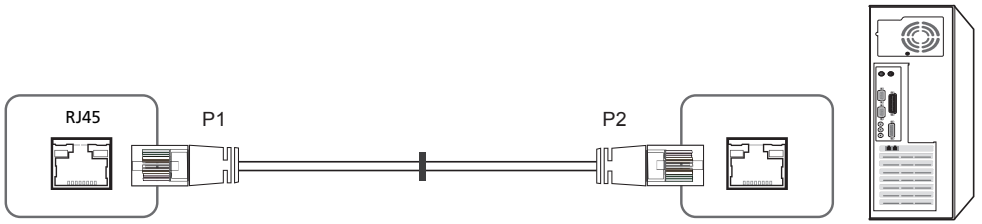
- Connector : RJ45

Direct LAN cable (PC to HUB)



Signal	P1		P2	Signal
TX+	1	<-------->	1	TX+
TX-	2	<-------->	2	TX-
RX+	3	<-------->	3	RX+
RX-	6	<-------->	6	RX-

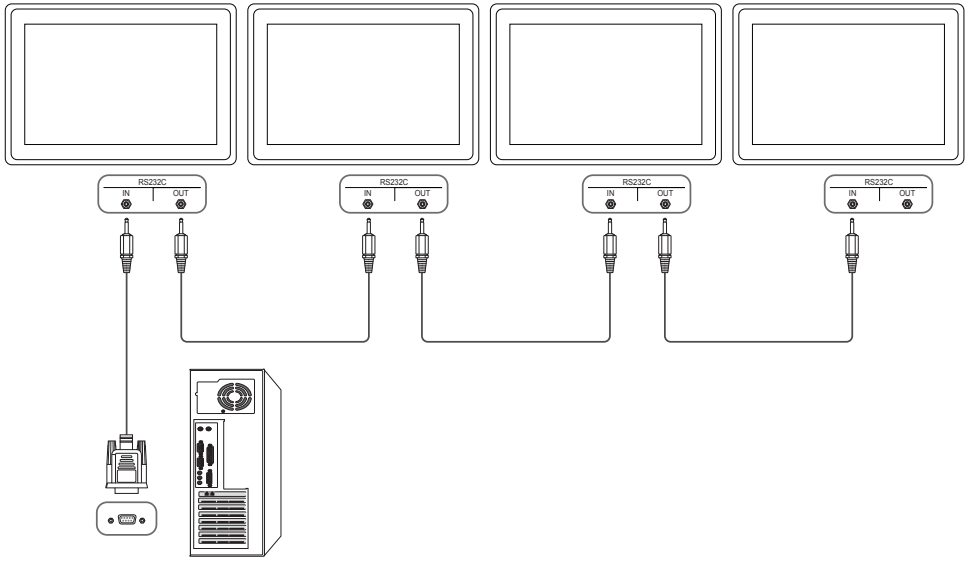
Cross LAN cable (PC to PC)



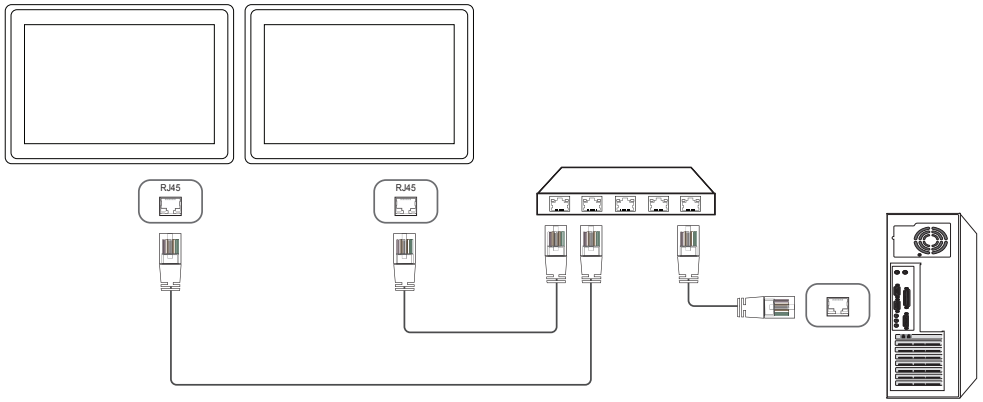
Signal	P1		P2	Signal
TX+	1	<-------->	3	RX+
TX-	2	<-------->	6	RX-
RX+	3	<-------->	1	TX+
RX-	6	<-------->	2	TX-

Connection

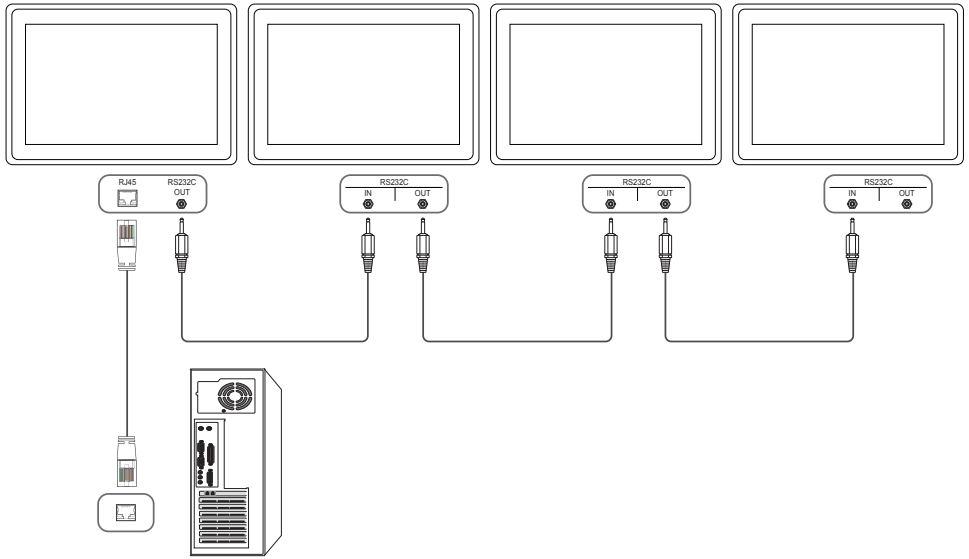
- Connection 1



- Connection 2



- Connection 3



Control Codes

Viewing control state (Get control command)

Header	Command	ID	Data length	Checksum
0xAA	Command type		0	

Controlling (Set control command)

Header	Command	ID	Data length	Data	Checksum
0xAA	Command type		1	Value	

Command

No.	Command type	Command	Value range
1	Power control	0x11	0~1
2	Volume control	0x12	0~100
3	Input source control	0x14	-
4	Screen mode control	0x18	-
5	Screen size control	0x19	0~255
6	PIP on/off control	0x3C	0~1
7	Auto adjustment control (PC and BNC only)	0x3D	0
8	Video wall mode control	0x5C	0~1
9	Safety Lock	0x5D	0~1
10	Video Wall On	0x84	0~1
11	Video Wall User Control	0x89	-

- All communications take place in hexadecimals. The checksum is calculated by adding up all values except the header. If a checksum adds up to be more than 2 digits as shown below (11+FF+01+01=112), the first digit is removed.

E.g. Power On & ID=0

Header	Command	ID	Data length	Data 1	Checksum
0xAA	0x11		1	"Power"	

Header	Command	ID	Data length	Data 1	12
0xAA	0x11		1	1	

- To control all devices connected by a serial cable simultaneously irrespective of IDs, set the ID as "0xFE" and transmit commands. Commands will be executed by each device but ACK will not respond.

Power control

- Function
  A product can be powered on and off using a PC.
- Viewing power state (Get Power ON / OFF Status)

Header	Command	ID	Data length	Checksum
0xAA	0x11		0	

- Setting power ON/Off (Set Power ON / OFF)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x11		1	"Power"	

"Power": Power code to be set on a product.

1: Power ON

0: Power OFF

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x11	"Power"	

"Power": Power code to be set on a product.

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x11	"ERR"	

"ERR" : A code showing what error has occurred.

Volume control

- Function
  The volume of a product can be adjusted using a PC.
- Viewing volume state (Get Volume Status)

Header	Command	ID	Data length	Checksum
0xAA	0x12		0	

- Setting the volume (Set Volume)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x12		1	"Volume"	

"Volume": Volume value code to be set on a product. (0-100)

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x12	"Volume"	

"Volume": Volume value code to be set on a product. (0-100)

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x12	"ERR"	

"ERR" : A code showing what error has occurred.

Input source control

- Function
  The input source of a product can be changed using a PC.
- Viewing input source state (Get Input Source Status)

Header	Command	ID	Data length	Checksum
0xAA	0x14		0	

- Setting the input source (Set Input Source)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x14		1	"Input Source"	

"Input Source": An input source code to be set on a product.

0x14	PC
0x18	DVI
0x0C	Input source
0x20	MagicInfo
0x1F	DVI_video
0x30	RF(TV)
0x40	DTV
0x21	HDMI1
0x22	HDMI1_PC
0x23	HDMI2
0x24	HDMI2_PC
0x25	DisplayPort

— DVI_video, HDMI1_PC and HDMI2_PC cannot be used with the Set command. They only respond to "Get" commands.

— This model does not support HDMI1, HDMI1_PC, HDMI2 and HDMI2_PC ports.

— **MagicInfo** is only available with models that contain the **MagicInfo** function.

— RF(TV), DTV are only available with models that include a TV.

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x14	"Input Source"	

"Input Source": An input source code to be set on a product.

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x14	"ERR"	

"ERR" : A code showing what error has occurred.

Screen mode control

- Function
  The screen mode of a product can be changed using a PC.
  Screen mode cannot be controlled when the **Video Wall** function is enabled.

  — This control can only be used on models that include a TV.

- Viewing screen status (Get Screen Mode Status)

Header	Command	ID	Data length	Checksum
0xAA	0x18		0	

- Setting the picture size (Set Picture Size)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x18		1	"Screen Mode"	

"Screen Mode": A code that sets the product status

0x01	16 : 9
0x04	Zoom
0x31	Wide Zoom
0x0B	4 : 3

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x18	"Screen Mode"	

"Screen Mode": A code that sets the product status

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x18	"ERR"	

"ERR": A code showing what error has occurred

Screen size control

- Function
  The screen size of a product can be changed using a PC.

- Viewing the screen size (Get Screen Size Status)

Header	Command	ID	Data length	Checksum
0xAA	0x19		0	

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x19	"Screen Size"	

"Screen Size": product screen size (range: 0 – 255, unit: inch)

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x19	"ERR"	

"ERR": A code showing what error has occurred

PIP On/Off control

- Function
  The PIP mode of a product can be turned on or off using a PC.
  — Only available on models that have the PIP function.
  — The mode cannot be controlled if **Video Wall** is set to **On**.
  — This function is not available in **MagicInfo**.
- Viewing PIP on/off state (Get the PIP ON / OFF Status)

Header	Command	ID	Data length	Checksum
0xAA	0x3C		0	

- Setting PIP on/off (Set the PIP ON / OFF)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x3C		1	"PIP"	

"PIP": A code used to turn the PIP mode of a product on or off

1: PIP ON

0: PIP OFF

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x3C	"PIP"	

"PIP": A code used to turn the PIP mode of a product on or off

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x3C	"PIP"	

"ERR": A code showing what error has occurred

Auto adjustment control (PC and BNC only)

- Function
  Automatically adjust the PC system screen using a PC.
- Viewing auto adjustment state (Get Auto Adjustment Status)
  None
- Setting auto adjustment (Set Auto Adjustment)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x3D		1	"Auto Adjustment"	

"Auto Adjustment" : 0x00 (at all times)

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x3D	"Auto Adjustment"	

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x3D	"ERR"	

"ERR": A code showing what error has occurred

Video Wall Mode Control

- Function
  Video Wall mode can be activated on a product using a PC.
  This control is only available on a product whose **Video Wall** is enabled.
- Viewing video wall mode (Get Video Wall Mode)

Header	Command	ID	Data length	Checksum
0xAA	0x5C		0	

- Setting the video wall (Set Video Wall Mode)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x5C		1	"Video Wall Mode"	

"Video Wall Mode": A code used to activate Video Wall mode on a product

1: **Full**

0: **Natural**

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x5C	"Video Wall Mode"	

"Video Wall Mode": A code used to activate Video Wall mode on a product

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x5C	"ERR"	

"ERR": A code showing what error has occurred

Safety Lock

- Function
  PC can be used to turn the **Safety Lock** function on or off on a product.
  This control is available regardless of whether or not the power is turned on.
- Viewing the safety lock state (Get Safety Lock Status)

Header	Command	ID	Data length	Checksum
0xAA	0x5D		0	

- Enabling or disabling safety lock (Set Safety Lock Enable / Disable)

Header	Command	ID	Data length	Data	Checksum
0xAA	0x5D		1	"Safety Lock"	

"Safety Lock": Safety lock code to be set on a product

1: ON

0: OFF

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x5D	"Safety Lock"	

"Safety Lock": Safety lock code to be set on a product

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x5D	"ERR"	

"ERR": A code showing what error has occurred

Video Wall On

- Function
  Turn Video Wall on or off on the product from your computer.
- Get Video Wall On/Off Status

Header	Command	ID	Data length	Checksum
0xAA	0x84		0	

- Set Video Wall On/Off

Header	Command	ID	Data length	Data	Checksum
0xAA	0x84		1	V.Wall_On	

- V.Wall_On: Video Wall code to be assigned to the product

1: Video Wall ON

0: Video Wall OFF

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'A'	0x84	V.Wall_On	

V.Wall_On : Same as above

- Nak

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x84	ERR	

"ERR": A code showing what error has occurred

Video Wall User Control

- Function
  Turn the Video Wall function on or off on the product from your computer.
- Get Video Wall Status

Header	Command	ID	Data length	Checksum
0xAA	0x89		0	

- Set Video Wall

Header	Command	ID	Data length	Val1	Val2	Checksum
0xAA	0x89		2	Wall_Div	Wall_SNo	

Wall_Div: Video Wall Divider code assigned to the product

10x10 Video Wall Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Off	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00	0x00
1	0x11	0x12	0x13	0x14	0x15	0x16	0x17	0x18	0x19	0x1A	0x1B	0x1C	0x1D	0x1E	0x1F
2	0x21	0x22	0x23	0x24	0x25	0x26	0x27	0x28	0x29	0x2A	0x2B	0x2C	0x2D	0x2E	0x2F
3	0x31	0x32	0x33	0x34	0x35	0x36	0x37	0x38	0x39	0x3A	0x3B	0x3C	0x3D	0x3E	0x3F
4	0x41	0x42	0x43	0x44	0x45	0x46	0x47	0x48	0x49	0x4A	0x4B	0x4C	0x4D	0x4E	0x4F
5	0x51	0x52	0x53	0x54	0x55	0x56	0x57	0x58	0x59	0x5A	0x5B	0x5C	0x5D	0x5E	0x5F
6	0x61	0x62	0x63	0x64	0x65	0x66	0x67	0x68	0x69	0x6A	0x6B	0x6C	0x6D	0x6E	0x6F
7	0x71	0x72	0x73	0x74	0x75	0x76	0x77	0x78	0x79	0x7A	0x7B	0x7C	0x7D	0x7E	N/A
8	0x81	0x82	0x83	0x84	0x85	0x86	0x87	0x88	0x89	0x8A	0x8B	0x8C	N/A	N/A	N/A
9	0x91	0x92	0x93	0x94	0x95	0x96	0x97	0x98	0x99	0x9A	0x9B	N/A	N/A	N/A	N/A
10	0xA1	0xA2	0xA3	0xA4	0xA5	0xA6	0xA7	0xA8	0xA9	0xAA	N/A	N/A	N/A	N/A	N/A
11	0xB1	0xB2	0xB3	0xB4	0xB5	0xB6	0xB7	0xB8	0xB9	N/A	N/A	N/A	N/A	N/A	N/A
12	0xC1	0xC2	0xC3	0xC4	0xC5	0xC6	0xC7	0xC8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	0xD1	0xD2	0xD3	0xD4	0xD5	0xD6	0xD7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14	0xE1	0xE2	0xE3	0xE4	0xE5	0xE6	0xE7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	0xF1	0xF2	0xF3	0xF4	0xF5	0xF6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

10x10 Video Wall Model : (1 ~ 100)

Set Number	Data
1	0x01
2	0x02
...	...
99	0x63
100	0x64

- Ack

Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Val2	Checksum
0xAA	0xFF		4	'A'	0x89	Wall_Div	Wall_SNo	

- Nak

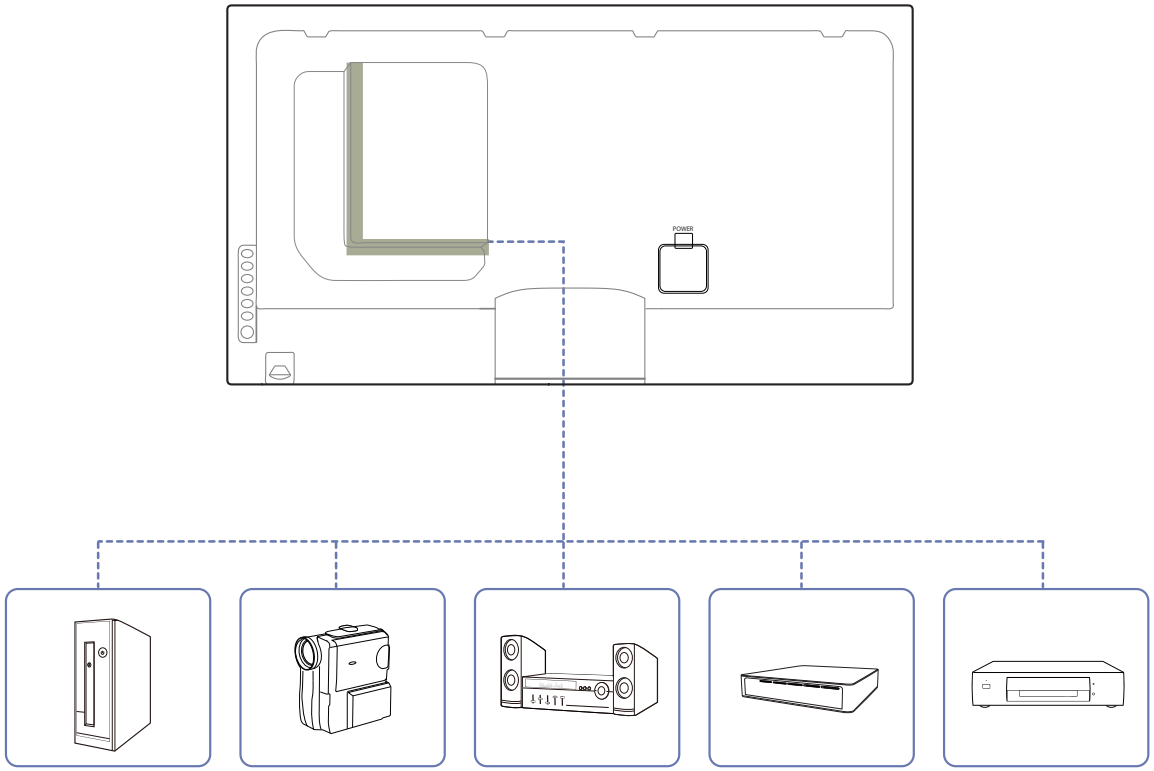
Header	Command	ID	Data length	Ack/Nak	r-CMD	Val1	Checksum
0xAA	0xFF		3	'N'	0x89	ERR	

"ERR": A code showing what error has occurred

Chapter 03
Connecting and Using a Source Device

Before Connecting

Check the following before you connect this product with other devices. Devices that can be connected to this product include PCs, camcorders, speakers, set top boxes and DVD/Blu-ray Disc players.



Pre-connection Checkpoints

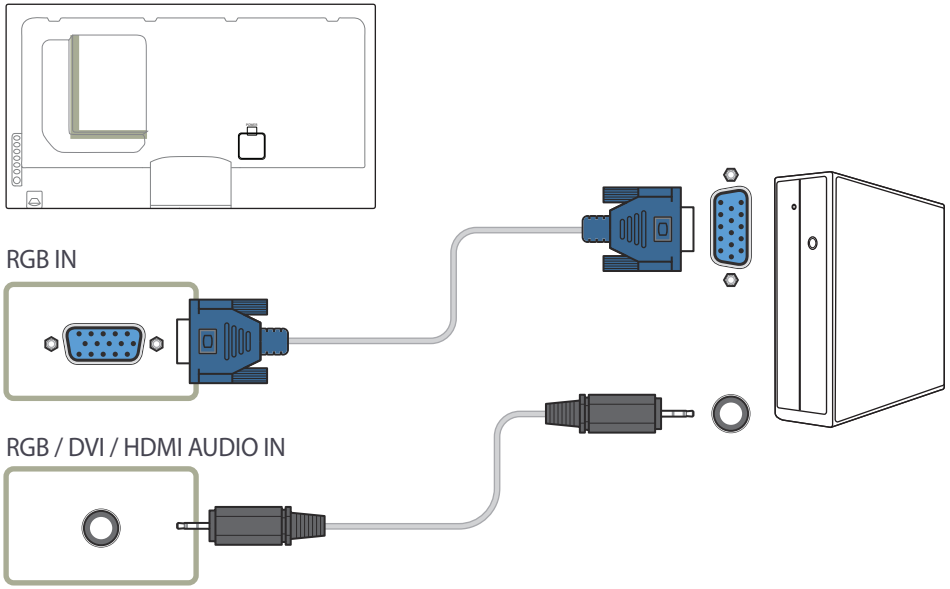
- Before connecting a source device, read the user manual provided with it. The number and locations of ports on source devices may differ from device to device.
- Do not connect the power cable until all connections are completed. Connecting the power cable during connection may damage the product.
- Connect the sound ports correctly: left = white and right = red.
- Check the types of ports at the back of the product you want to connect.

Connecting to a PC

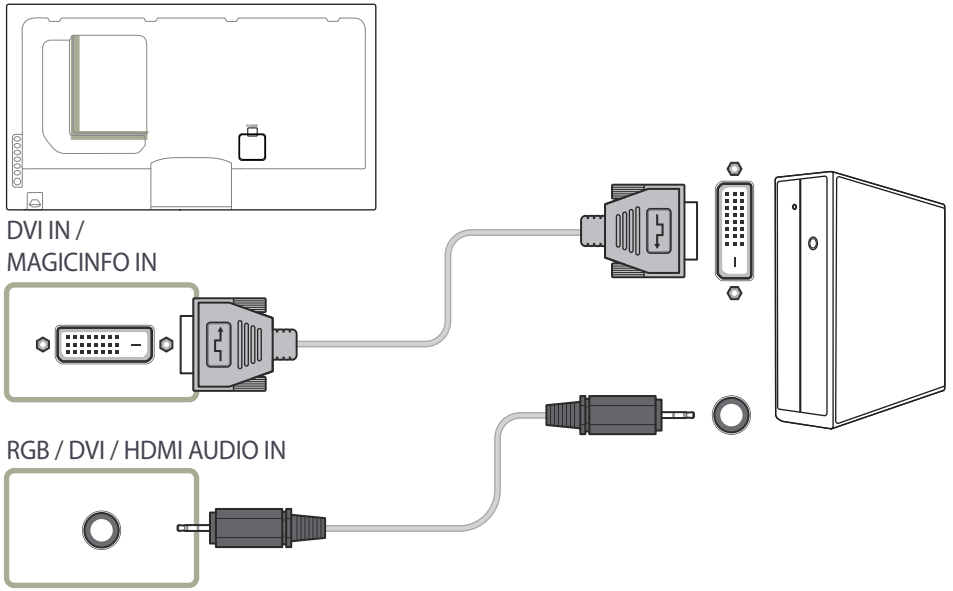
- Do not connect the power cable before connecting all other cables.
  Ensure you connect a source device first before connecting the power cable.
- A PC can be connected to the product in a variety of ways.
  Select a connection method suitable for your PC.

— Connecting parts may differ in different products.

Connection using the D-SUB cable (Analog type)

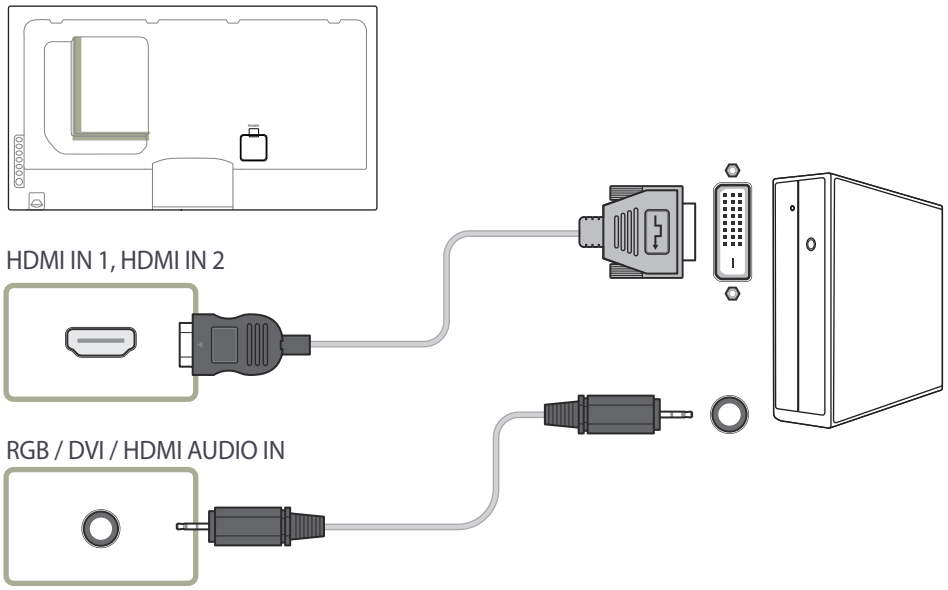


Connection using a DVI cable (Digital type)

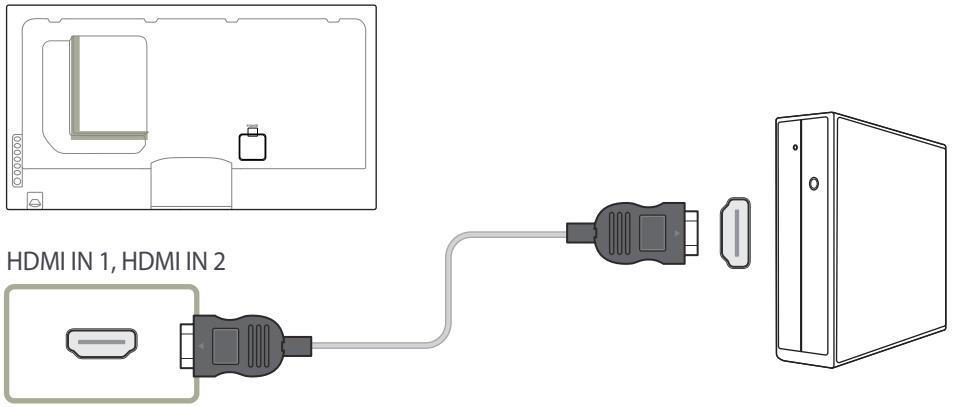


Connection Using an HDMI-DVI Cable

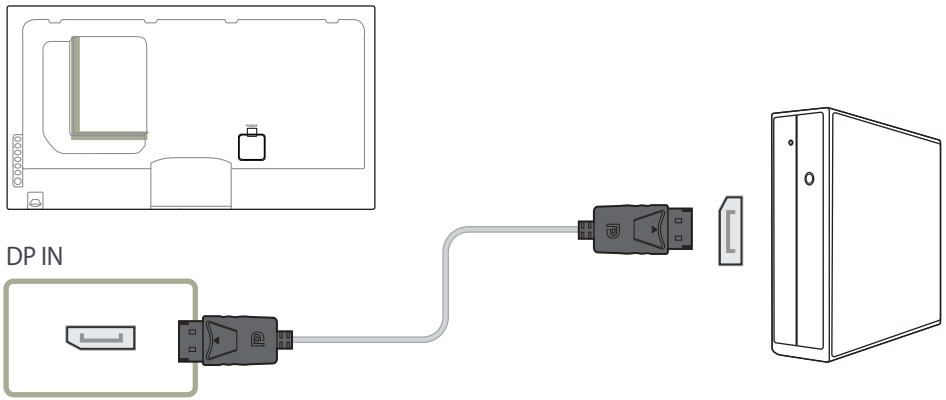
When you connect a PC to the product using an HDMI-DVI cable, set **Edit Name** to **DVI PC** to access video and audio content stored on the PC.



Connection Using an HDMI Cable



Connection Using an DP Cable



- Precautions for using DP
  - To increase the standby power capacity, the product stops DP communication when it is turned off or in power-saving mode.
    If the product in dual monitor mode is turned off or goes into power-saving mode, monitor setting changes may not be updated. As a result, screen output may not be displayed properly.
    In the occurrence of this issue, set **Max. Power Saving** to **Off** before using the product.
  - Some graphics cards that are not compliant with the DP standard may prevent the Windows Booting/Bios screen from being displayed when the product is in power-saving mode. If this is the case, make sure to turn on the product first before turning on your PC.

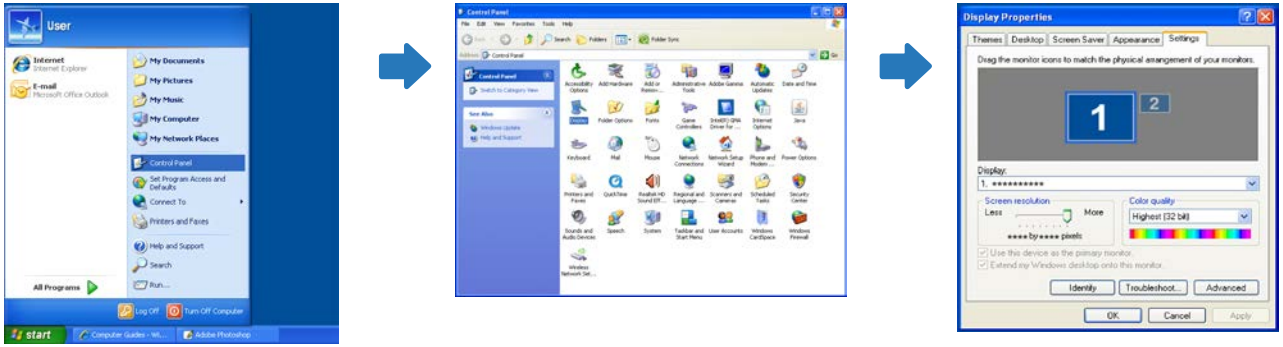
Changing the Resolution

— Adjust the resolution and refresh rate in Control Panel on your PC to obtain optimum picture quality.

— The picture quality of TFT-LCDs may degrade if the optimum resolution is not selected.

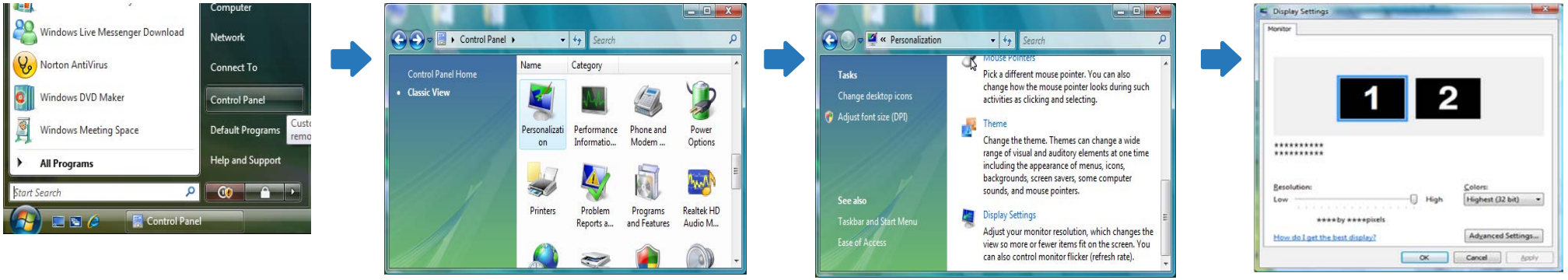
Changing the Resolution on Windows XP

Go to **Control Panel** → **Display** → **Settings**, and change the resolution.



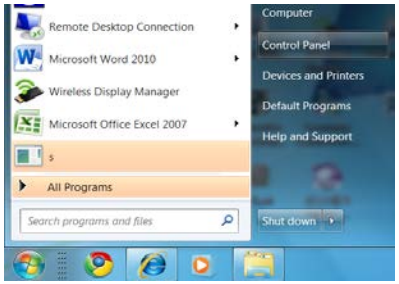
Changing the Resolution on Windows Vista

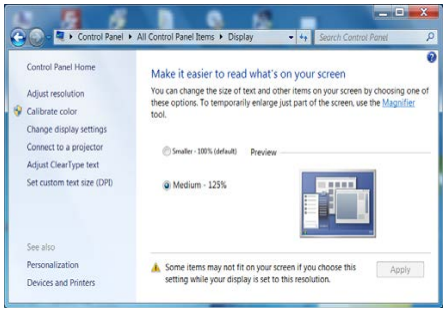
Go to **Control Panel** → **Personal Settings** → **Display Settings**, and change the resolution.



Changing the Resolution on Windows 7

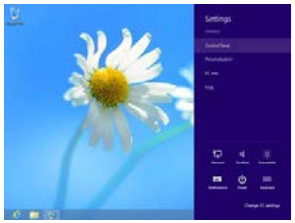
Go to **Control Panel** → **Display** → **Screen Resolution**, and change the resolution.

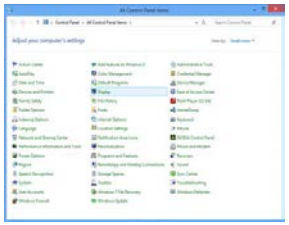


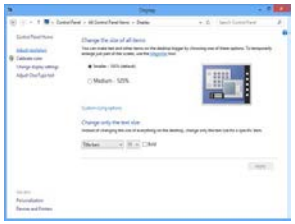


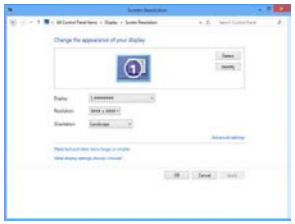
Changing the Resolution on Windows 8

Go to **Settings** → **Control Panel** → **Display** → **Screen Resolution**, and change the resolution.







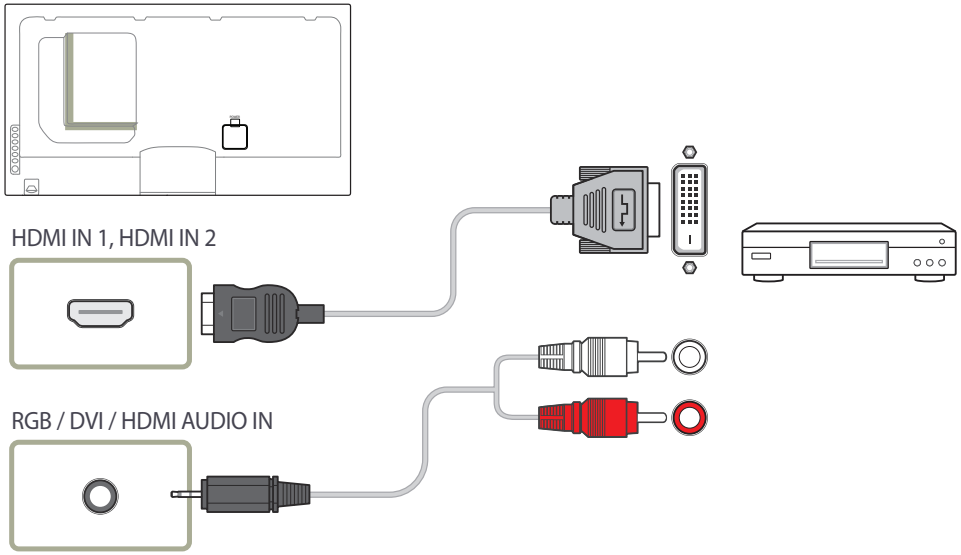


Connecting to a Video Device

- Do not connect the power cable before connecting all other cables.
  Ensure you connect a source device first before connecting the power cable.
- You can connect a video device to the product using a cable.
  - Connecting parts may differ in different products.
  - Press the **SOURCE** button on the remote control to change the source.

Connection Using an HDMI-DVI Cable

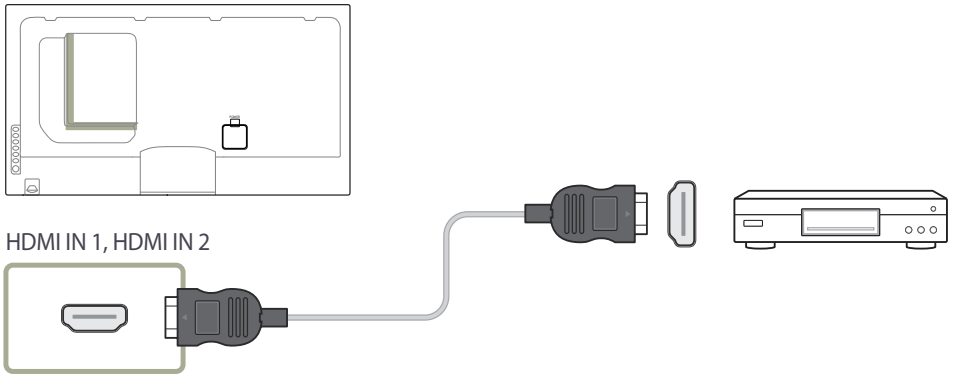
- Audio will not be enabled if the product is connected to a video device using an HDMI-DVI cable. To resolve this, additionally connect an audio cable to the audio ports on the product and video device. When you connect a video device to the product using an HDMI-DVI cable, set **Edit Name** to **DVI Devices** to access video and audio content stored on the video device.
- Supported resolutions include 1080p (50/60Hz), 720p (50/60Hz), 480p, and 576p.



Connection Using an HDMI Cable

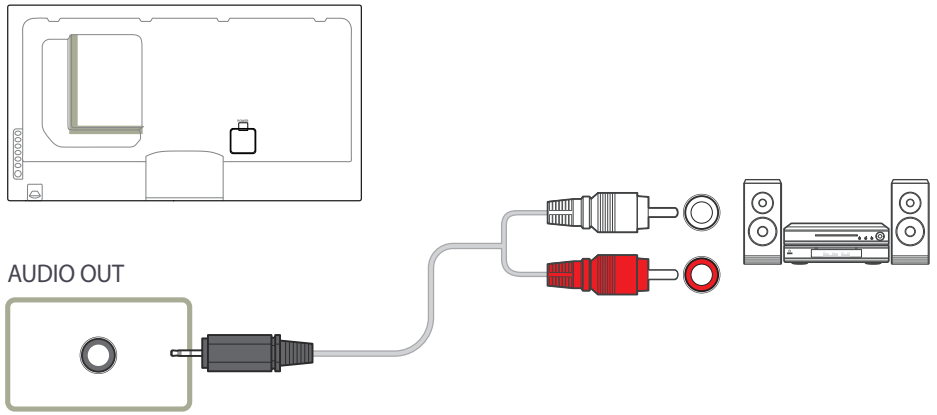
Using an HDMI cable or HDMI to DVI Cable (up to 1080p)

- For better picture and audio quality, connect to a digital device using an HDMI cable.
- An HDMI cable supports digital video and audio signals, and does not require an audio cable.
  - To connect the product to a digital device that does not support HDMI output, use an HDMI-DVI and audio cables.
- The picture may not display normally (if at all) or the audio may not work if an external device that uses an older version of HDMI mode is connected to the product. If such a problem occurs, ask the manufacturer of the external device about the HDMI version and, if out of date, request an upgrade.
- Be sure to use an HDMI cable with a thickness of 14 mm or less.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- A basic high-speed HDMI cable or one with ethernet is recommended.
  This product does not support the ethernet function via HDMI.



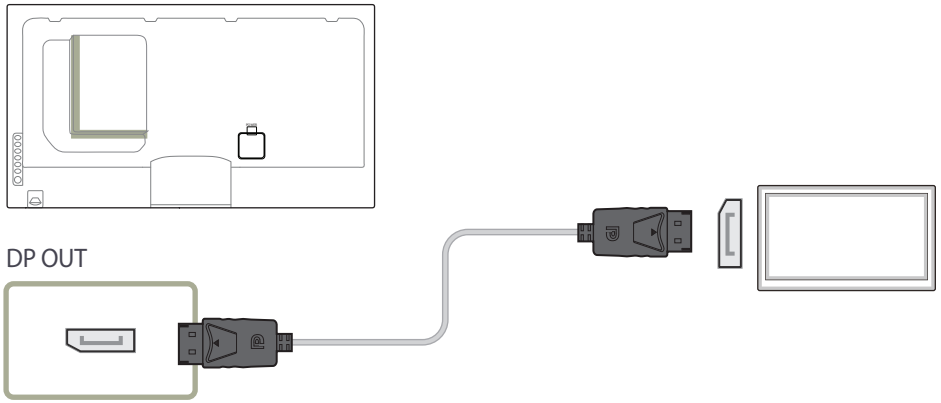
Connecting to an Audio System

— Connecting parts may differ in different products.



Connecting an External Monitor

— Connecting parts may differ in different products.



Connecting the network box (Sold separately)

— For details on how to connect to a network box, refer to the user's manual provided with the network box upon purchase.

MagicInfo

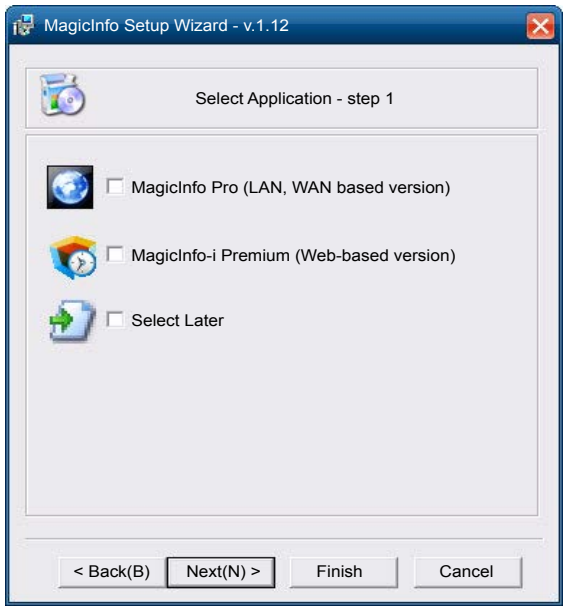
To use **MagicInfo**, a network box (sold separately) must be connected to the product.

— To change the MagicInfo settings, run "MagicinfoSetupWizard" on the desktop.

— For details on how to use **MagicInfo**, refer to the DVD provided with the network box.

— The information in this section is subject to change without notice for quality improvement.

— If a problem occurs after installing an operating system other than the one provided with the network box, restoring the previous version of the operating system, or installing software that is not compatible with the operating system provided, you will not be able to benefit from technical support and will be charged a fee for a visit from a service technician. A product exchange or refund will also not be available.



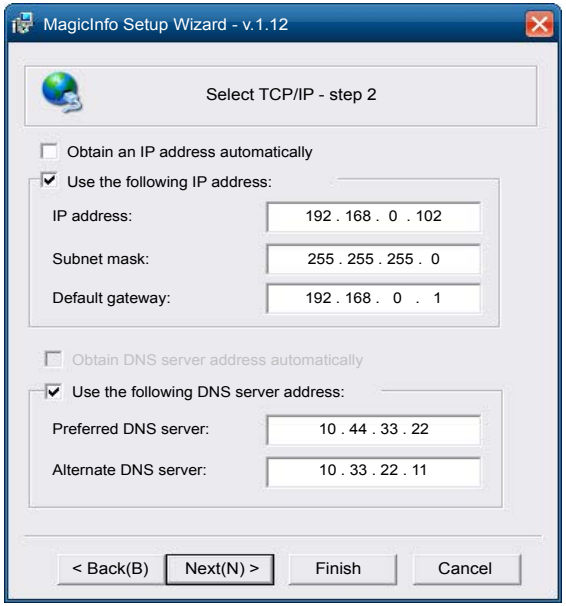
Entering MagicInfo mode

1 After installing and connecting the network box (sold separately) to the product, power on the product.

2 Press **SOURCE** on the remote control, and select **MagicInfo**.

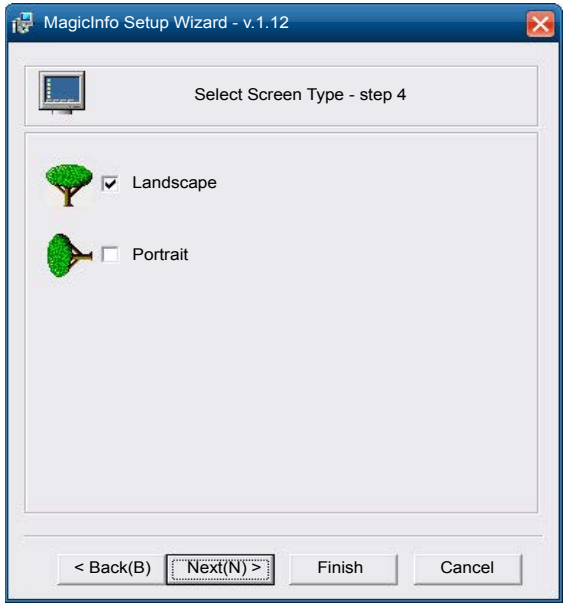
— Connecting the network box to the **DVI IN / MAGICINFO IN** port on the product will change **Source** from **DVI** to **MagicInfo**.

3 Select the default application you want to run when MagicInfo starts.

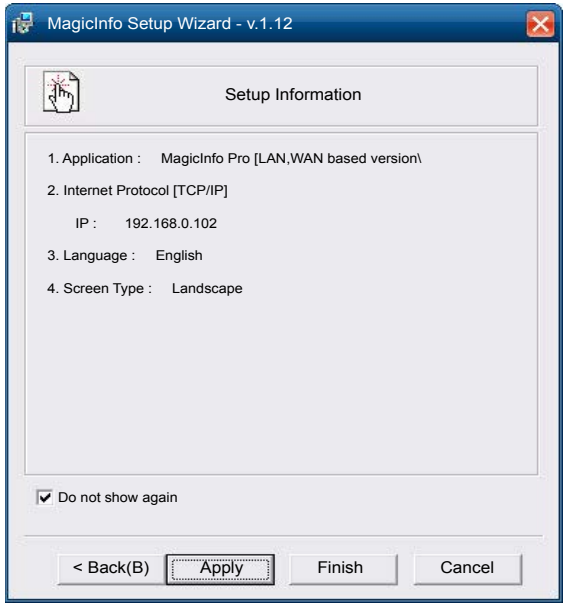

MagicInfo Setup Wizard - v.1.12
Select TCP/IP - step 2
Obtain an IP address automatically
Use the following IP address:
IP address:
192 . 168 . 0 . 102
Subnet mask:
255 . 255 . 255 . 0
Default gateway:
192 . 168 . 0 . 1
Obtain DNS server address automatically
Use the following DNS server address:
Preferred DNS server:
10 . 44 . 33 . 22
Alternate DNS server:
10 . 33 . 22 . 11
< Back(B)
Next(N) >
Finish
Cancel

4 Enter the IP information.

5 Select a language. (The default language is **English**.)



6 Select a display mode.



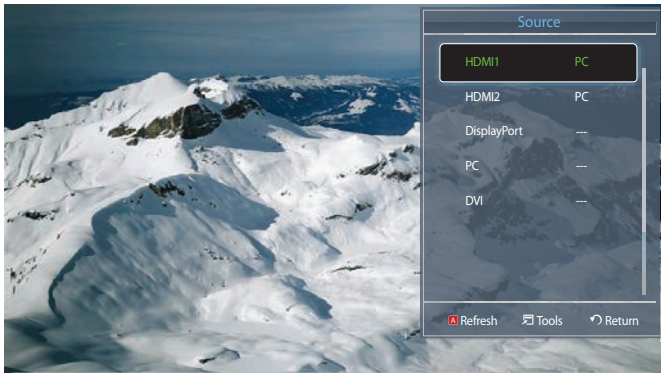
7 Double-check the settings you have just configured.

— If the execution icon does not appear, double-click the **MagicInfo** icon on the desktop. The icon will appear at the bottom right of the screen.

Changing the Input source

Source

MENU → **Support** → **Contents Home** → **Source** → **ENTER**



– The displayed image may differ depending on the model.

Source allows you to select a variety of sources and change source device names.

You can display the screen of a source device connected to the product. Select a source from source list to display the screen of the selected source.

— The input source can also be changed by using the **SOURCE** button on the remote control.

— The screen may not display correctly if an incorrect source is selected for the source device you want to convert to.

Chapter 04
Using MDC

Configuring Settings for Multi Control

MENU → **System** → **Multi Control** → **ENTER**

Assign an individual ID to your product.

Configuring settings for Multi Control

- **ID Setup**
  Assign an ID to a set. (Range: 0~99)
  Press ▲/▼ to select a number, and press .
- **ID Input**
  Enter the ID number of the product connected to the input cable for input signal reception.
  Enter the number you want using the number buttons on the remote control.
- **MDC Connection**
  Select a method to connect to MDC to receive the MDC signal.
  - **RS232C MDC**
    Communicates with the MDC via a RS232C MDC cable.
  - **RJ45 MDC**
    Communicates with the MDC via an RJ45 MDC cable.
- **DisplayPort Daisy Chain**
  To display the **DP IN** video input through the **DP OUT** output port, select a device connection method from Single Stream Transport (SST) and Multi Stream Transport (MST).
  Clone: In this Single Stream Transport (SST) output mode, the same screen output is displayed on two display devices connected.
  - If **Clone** is selected, the PC recognizes the two displays as a single monitor.
  - **Clone** mode is enabled if the input source is a digital input other than **DisplayPort**, such as **DVI**, **HDMI1**, **HDMI2**, or **MagicInfo**.

  Expand: In this Multi Stream Transport (MST) mode, a different screen output is displayed on two display devices connected.
  - If **Expand** is selected, the PC recognizes the two displays as separate monitors.
  - The mode functions only on a PC that supports DisplayPort 1.2 MST.
  - For Full HD resolution (1920x1080) displays, a maximum of four displays can be connected.

MDC Program Installation/Uninstallation

Installation

MDC installation can be affected by the graphics card, mother board and network conditions.

If a software installation window is not displayed on the main screen, install with the **MDC Unified** execution file in the **MDC** folder on the CD.

1 Insert the installation CD into the CD-ROM drive.

2 Click the **MDC Unified** installation program.

3 Select a language for installation. Next, click "**OK**".

4 When the "**Welcome to the InstallShield Wizard for MDC_Unified**" screen appears, click "**Next**".

5 In the "**License Agreement**" window displayed, select "**I accept the terms in the license agreement**" and click "**Next**".

6 In the displayed "**Customer Information**" window, fill out all the information fields and click "**Next**".

If the directory path is not specified, the program will be installed in the default directory path.

7 In the displayed "**Destination Folder**" window, select the directory path you want to install the program in and click "**Next**".

8 In the displayed "**Ready to Install the Program**" window, check the directory path to install the program in and click "**Install**".

9 Installation progress will be displayed.

Select "**Launch MDC Unified**" and click "**Finish**" to run the MDC program immediately.

10 Click "**Finish**" in the displayed "**InstallShield Wizard Complete**" window.

11 The **MDC Unified** shortcut icon will be created on the desktop after installation.

- The MDC execution icon may not be displayed depending on the PC system or product specifications.
- Press F5 if the execution icon is not displayed.

Uninstallation

1 Select **Settings** > **Control Panel** on the **Start** menu and double-click **Add/Delete Program**.

2 Select **MDC Unified** from the list and click **Change/Remove**.

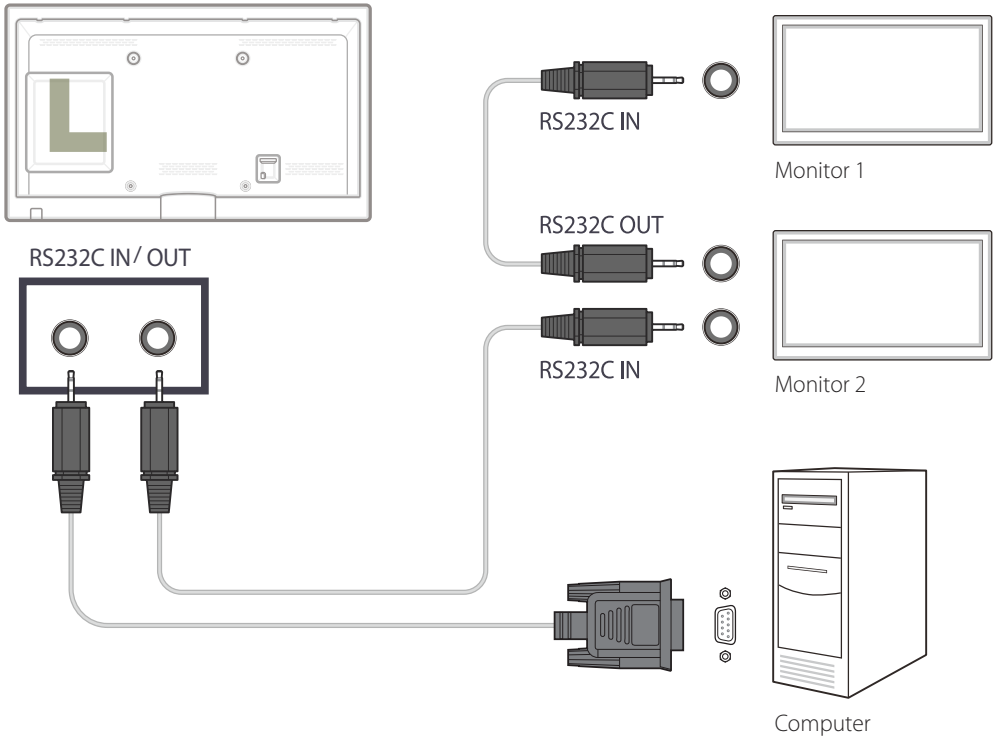
What is MDC?

Multiple display control "MDC" is an application that allows you to easily control multiple display devices simultaneously using a PC.

Connecting to MDC

Using MDC via RS-232C (serial data communications standards)

An RS-232C serial cable must be connected to the serial ports on the PC and monitor.

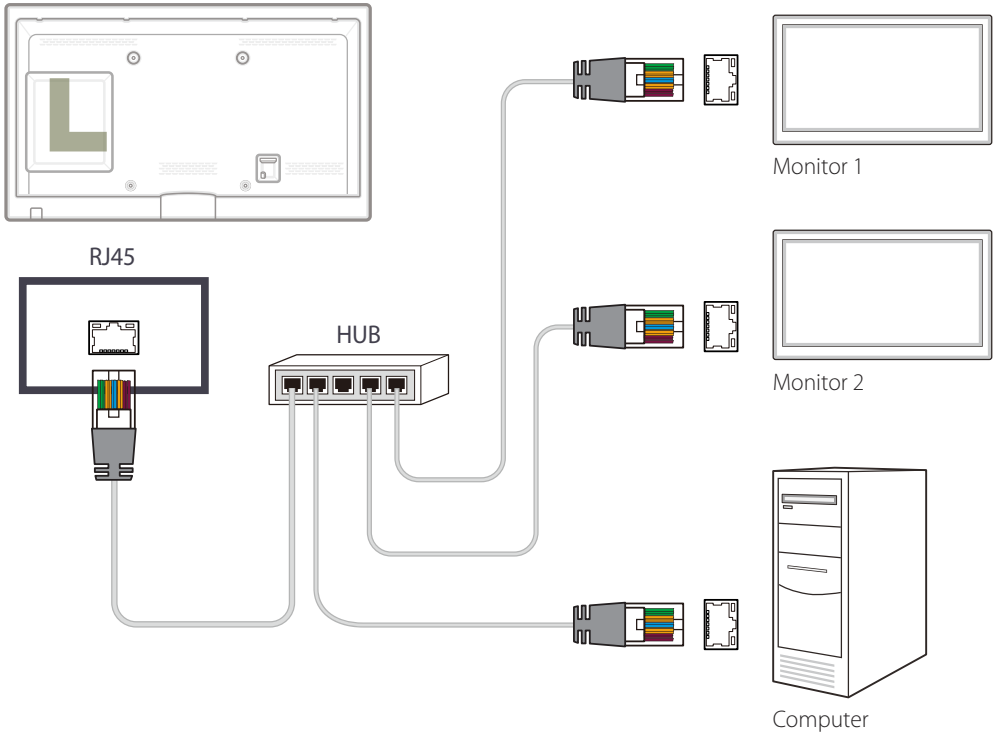


Using MDC via Ethernet

Enter the IP for the primary display device and connect the device to the PC. One display device can connect to another using an RS-232C serial cable.

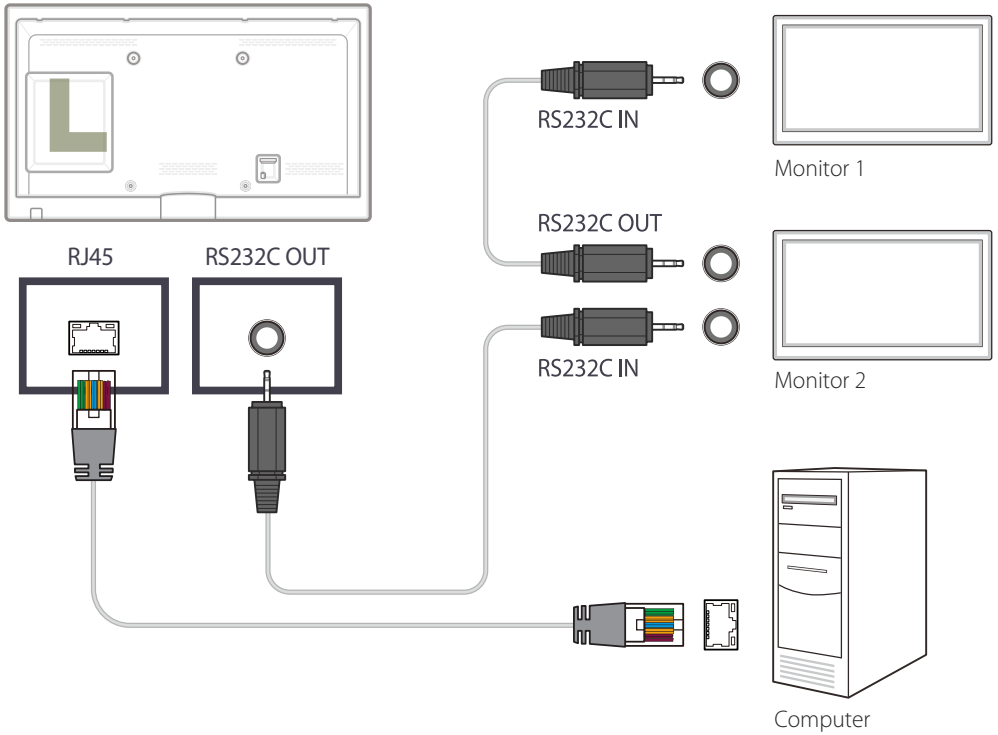
Connection using a direct LAN cable

— Multiple products can be connected using the **RJ45** port on the product and the LAN ports on the HUB.



Connection using a cross LAN cable

— Multiple products can be connected using the **RS232C IN / OUT** port on the product.



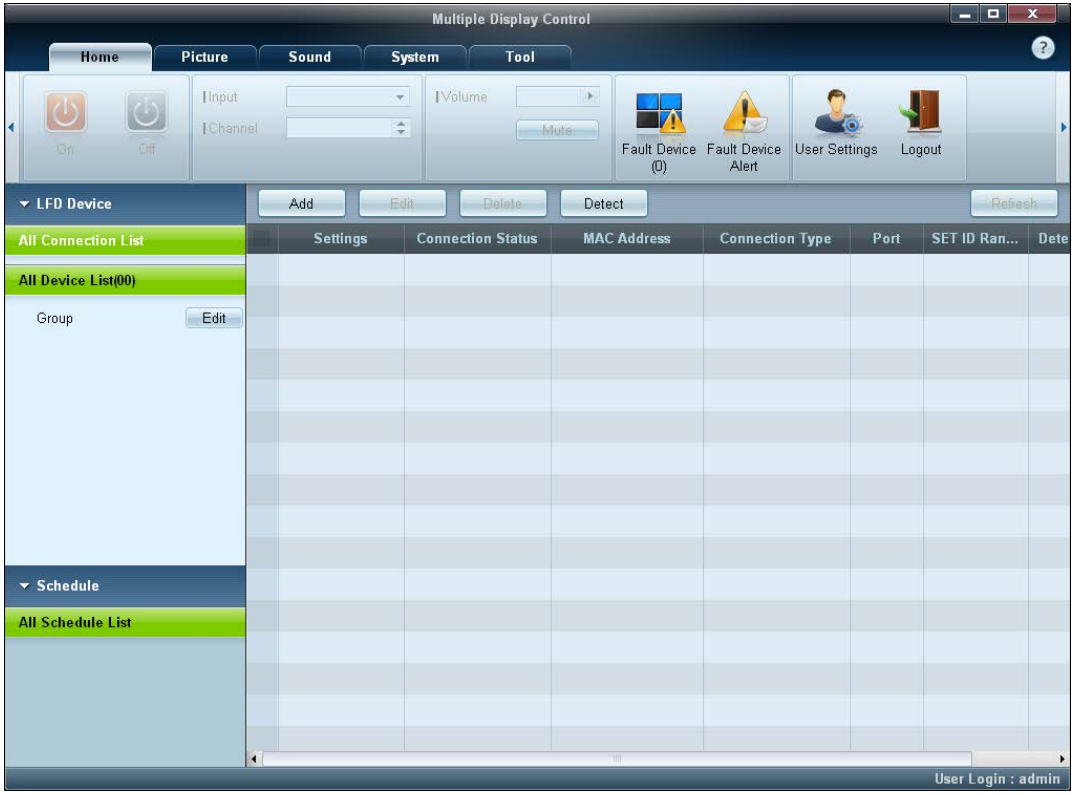
Connection Management

Connection management includes the **Connection list** and **Connection list** modification options.

Connection list - Connection list shows the details of the connections such as connection setting (IP/COM, Port No, MAC, and Connection Type), connection status, **Set ID Range**, and detected devices.

Each connection can contain a maximum of 100 devices connected in serial daisy-chain fashion. All the LFDs detected in a connection are displayed in the Device list, where the user can make groups and send commands to detected devices.

Connection list modification options - Connection modification options includes **Add**, **Edit**, **Delete**, and **Refresh**.



User Login

Launching the program displays the user login window.

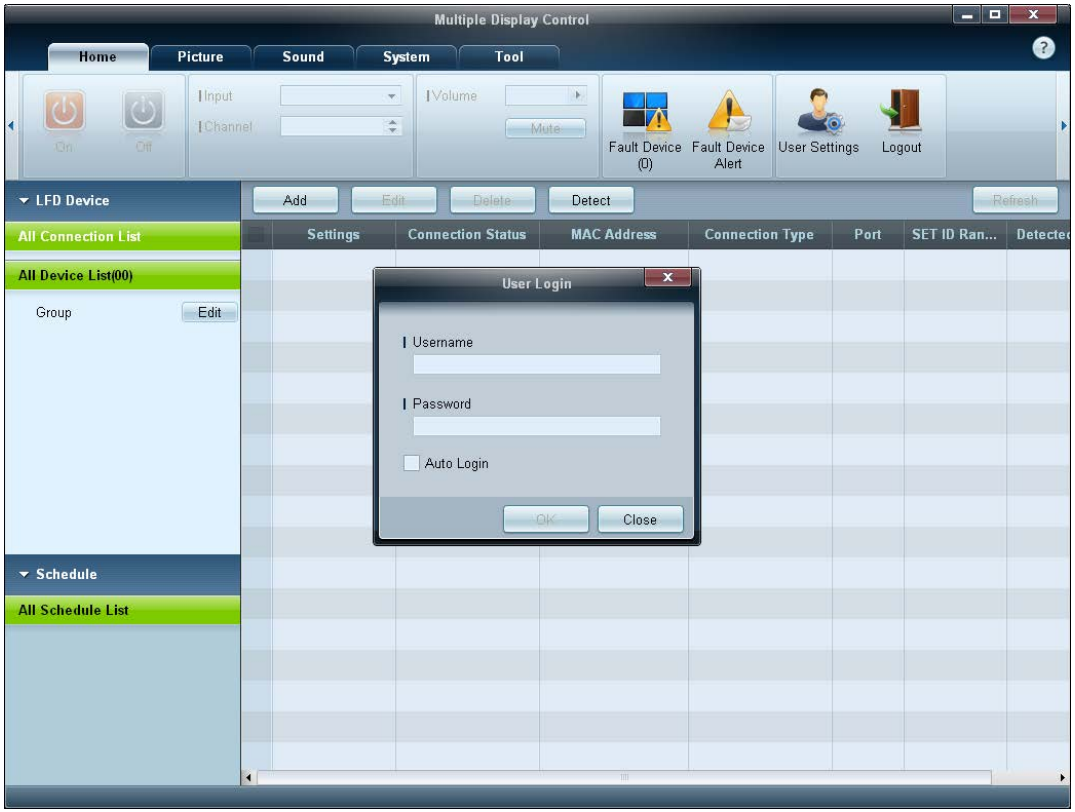
The initial login ID (**password**: **admin**) and password (**Auto Login**: **admin**) are set to **admin**.

— After logging in for the first time, make sure to change the password to ensure security.

— To change the password, go to **Home** > **User Settings**.

After you are logged in, [**User Login : admin**] appears at the right bottom of the program.

To log in automatically when the program restarts, select the **Auto Login** checkbox in the **User Login** window.



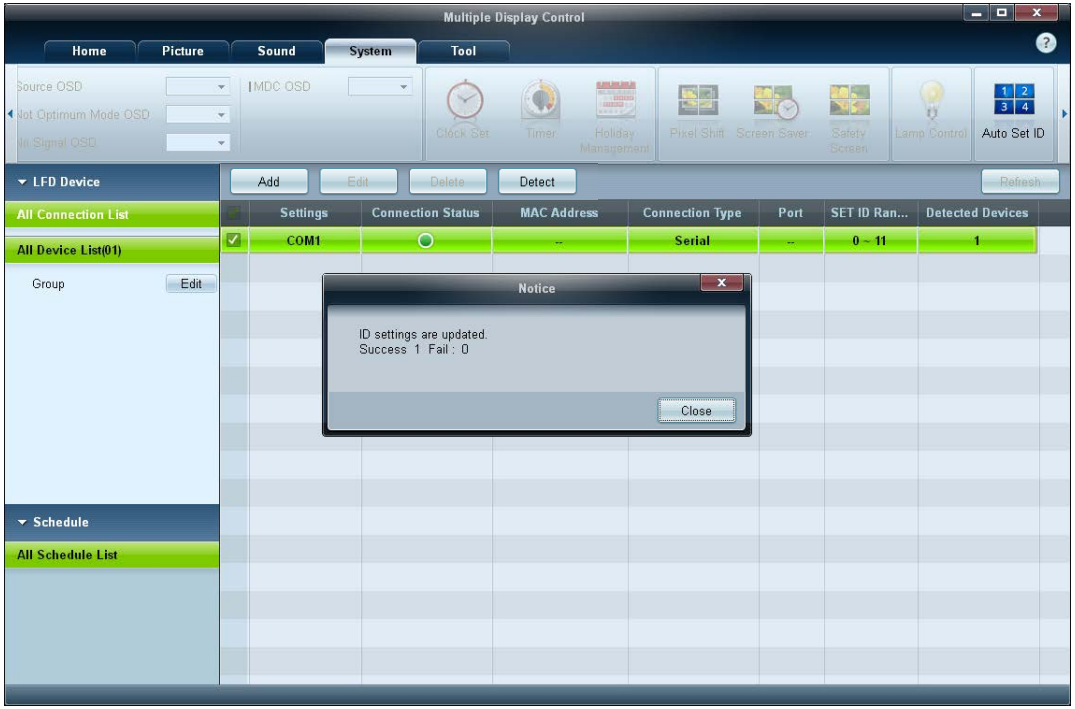
Auto Set ID

Auto Set ID feature assigns a Set ID for all the LFDs connected in daisy-chain of a selected connection.

There can be a maximum of 100 LFDs in a connection.

The Set ID is assigned sequentially in the daisychain running from 1 to 99, and then finally to Set ID 0.

— ID for the last 100th LFD is set to 0.

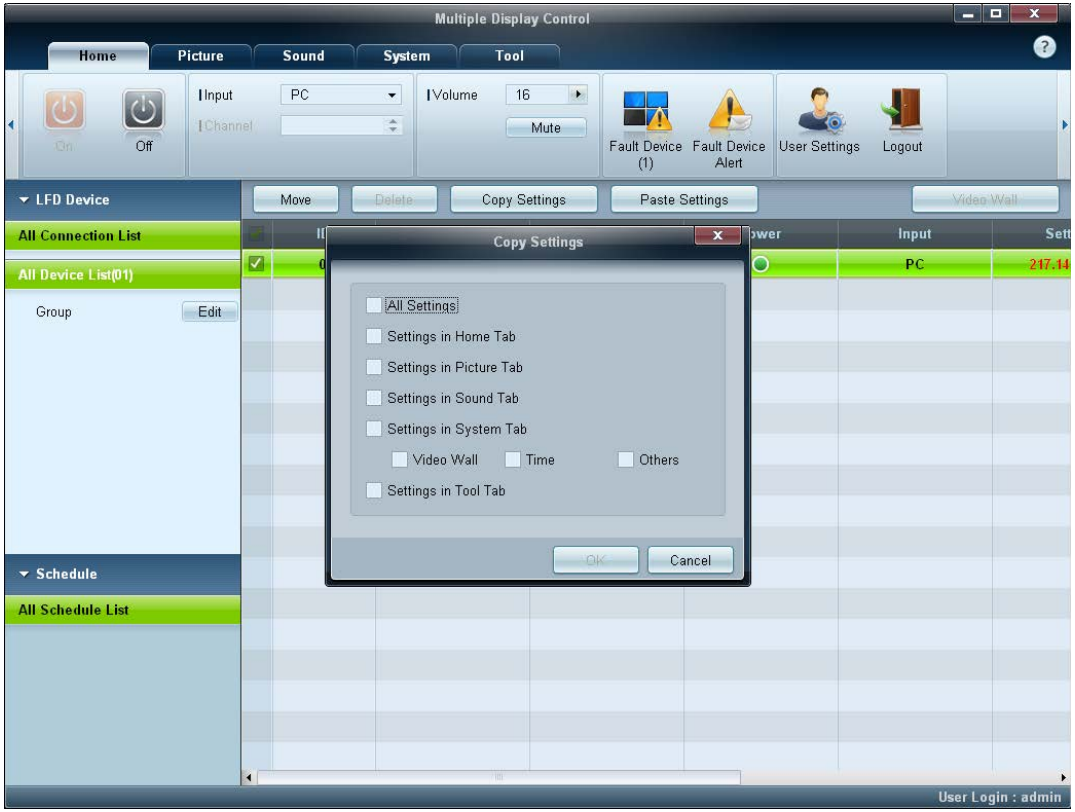


Cloning

Using the **Cloning** feature, you can copy the setting of one LFD and apply it to multiple selected LFDs.

You can select specific tab categories or all tab categories for cloning, using the copy setting option window.

— To delete the settings you have configured, click the **Paste Settings** button.

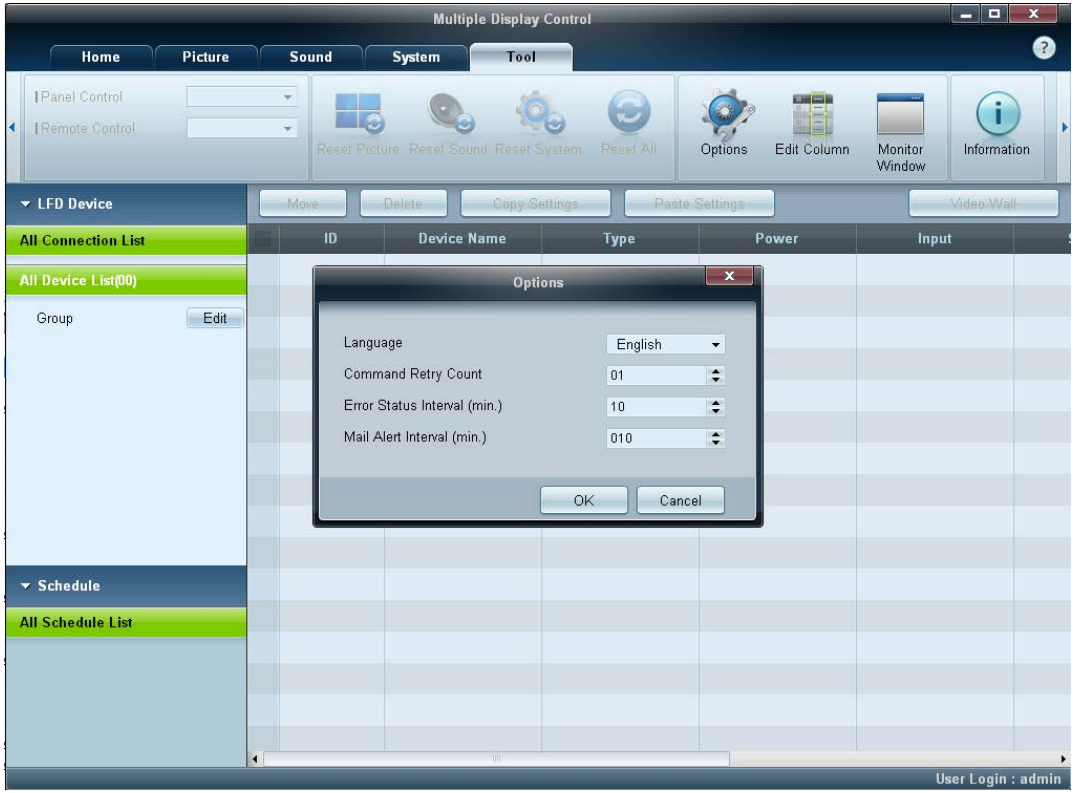


Command Retry

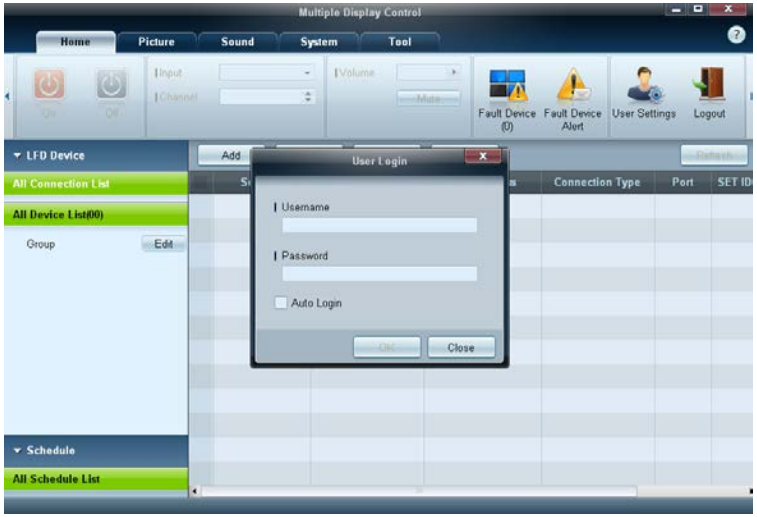
This feature is used to specify the maximum number of times the MDC command will be retried in case of there being no reply or a corrupted reply from an LFD.

The retry count value can be set using the MDC options window.

The retry count value must be between 1-10. The default value is 1.



Getting Started with MDC

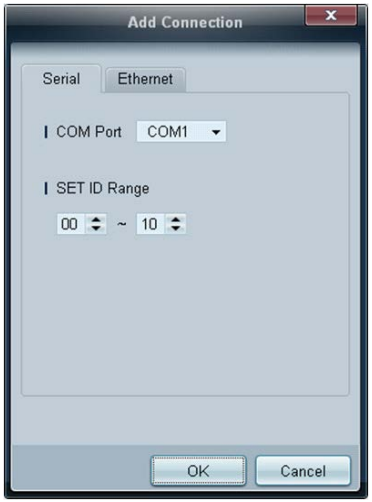


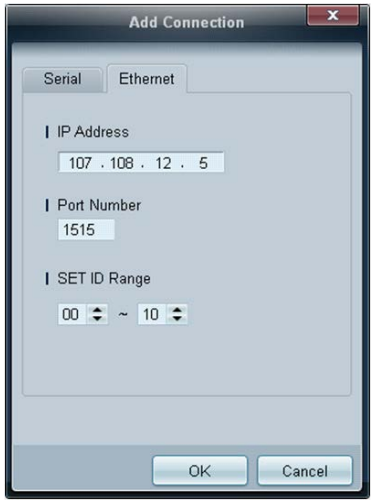
1 To start the program, click **Start** → **Programs** → **Samsung** → **MDC Unified**.

The login window appears after the MDC program is launched.

Enter the user ID and password.

- The default user ID and password are **admin**.
- Make sure to change the password after the first login.



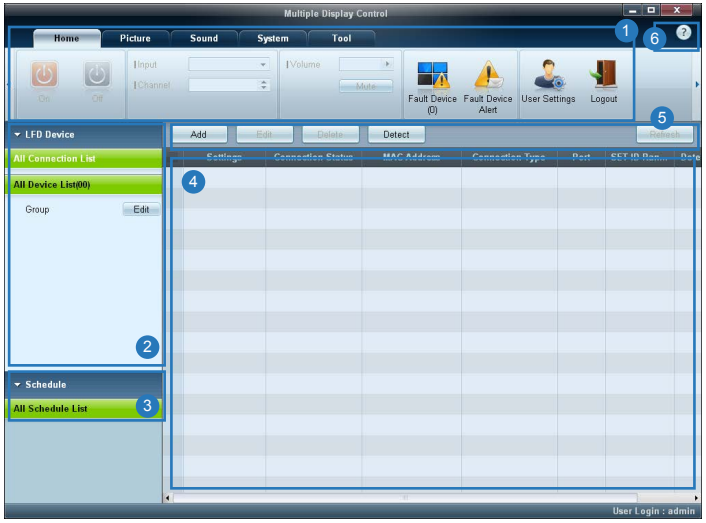


2 Click **Add** to add a display device.

SET ID Range: Select a range of the unique ID assigned to a monitor.

- If the connection is established via RS232C, go to **Serial** and specify the **COM Port**.
- If the connection is established via **Ethernet**, enter the IP that was entered for the display device.

Main Screen Layout



1 **Menu Bar**	Change the status of a display device or the properties of the program.
2 **Device Category**	View a list of connected display devices or device groups.
3 **Schedule Category**	View a list of schedules for display devices.
4 **Set List**	Select the display device you want to adjust.
5 **Modify the Set List**	Add, edit, regroup or delete sets.
6 **Help Topics**	Display help topics for the program.

Menus

Home

You can power on or off a selected device or change the input source or volume of the device.

Choose display devices from the list of sets, and select the **Home** tab.

Select an item and change the corresponding setting.

Power

- **On**: Power on a selected display.
- **Off**: Power off a selected display.

Input

- Input Source : Change the input source.
  - Input sources available can vary depending on the Display Device Models.
  - The input source can be changed only for displays that are turned on.
- **Channel**: Change the channel.
  - The TV channel can be changed by using the up/down arrow keys.
  - The channel can be changed only when the input source is **TV**.
  - Only registered channels can be selected.
  - Only applicable to models that support TVs.

Volume

— The volume can be changed or the sound can be muted only for displays that are turned on.

Volume

- Adjust the volume of a selected display.
- The volume can be adjusted using the slider bar in the range of 0 to 100.

Mute

- Enable or disable **Mute** for a selected display.
  Mute will automatically be disabled if **Volume** is adjusted when **Mute** is on.

Alert

Fault Device

- This menu shows a list of display devices which have following errors - fan error, temperature error, brightness sensor error, or lamp error.
- Select a display device from the list. The **Repair** button will be enabled.
- Click the **Refresh** button to refresh the error status of the display device. The recovered display device will disappear from the **Fault Device List**.

Fault Device Alert

- Display device in which error is detected will be reported by email.
- Fill in all required fields. The **Test** and **OK** buttons will be enabled.
  Ensure the **Sender** information and at least one **Recipient** are entered.

User Login

User Settings

- Add, delete or edit login information.

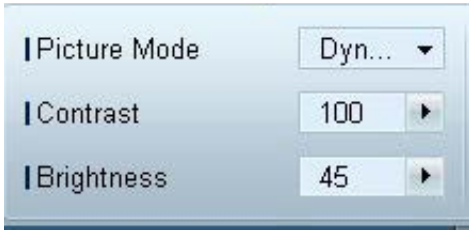
Logout

- Log out from the current user account as follows.
- Click **Logout**. The message "**Do you want to log admin out?**" is displayed
- Click **Yes**. The user login window appears.
- If you do not want to log in, click **Close**. The program is closed.

  — If you close the program using **Logout**, the login window will appear prompting you to enter user information even if the **Auto Login** checkbox is selected.

Screen Adjustment

Custom



The screen settings (contrast, brightness, etc.) can be adjusted.

Choose display devices from the list of sets, and select the **Picture** tab.

Select an item and change the corresponding screen setting.

Picture Mode

- Adjust the picture mode for the selected display device.

Contrast

- Adjust the contrast for the selected display device.

Brightness

- Adjust the brightness for the selected display device.

Color

- **Color** and **Tint (G/R)** are not available if the input source is **PC**.
- **Color**, **Tint (G/R)**, **Color Tone** and **Color Temp.** are not available if both **PC Source** and **Video Source** are selected.

Color

- Adjust the colors for the selected display device.

Tint (G/R)

- Adjust the tint for the selected display device.

Color Tone

- Adjust the background color tone for the selected display device.

Color Temp.

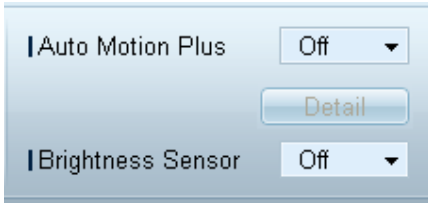
- Adjust the color temperature for the selected display device.

— This option is enabled if **Color Tone** is set to **Off**.

HDMI Black Level

- Adjust the **HDMI Black Level** for the selected display device.

Options



Auto Motion Plus

This option is used to view dynamic images.

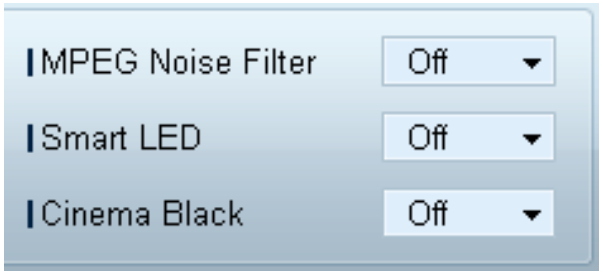
- **Off**: Disable the **Auto Motion Plus** function.
- **Clear**: Set the level of **Auto Motion Plus** to clear. This mode is suitable to display vivid images.
- **Standard**: Set the level of **Auto Motion Plus** to standard.
- **Smooth**: Set the level of **Auto Motion Plus** to smooth. This mode is suitable to display smooth images.
- **Custom**: Customize the level of screen burn-in or flickering.
- **Demo**: This function demonstrates the technology of **Auto Motion Plus**. The result when the mode is changed can be previewed on the left side of the window.

  — **Auto Motion Plus** may not be available depending on the product.
- **Detail**: View detailed information about the selected display device.

Brightness Sensor

- Enable or disable the **Brightness Sensor** for the selected display device.
- The **Brightness Sensor** detects the ambient light intensity and automatically adjusts the screen brightness.

  — **Brightness Sensor** may not be available depending on the product.



MPEG Noise Filter

Reduces MPEG noise to provide improved picture quality.

- **Off** / **Low** / **Medium** / **High** / **Auto**

Smart LED

Controls the LED backlight to maximize picture clarity.

Cinema Black

In Movie mode, this feature dims the top and bottom areas of the video image to provide a more immersive viewing experience.

- **Off**: Turns off the **Cinema Black** feature.
- **On**: Adjusts the dimming of the top and bottom areas of the screen according to the video.

Size

Picture Size

- Adjust the screen size for the selected display device.
- The **Detail** item will be disabled if **Picture Size** is set to a mode that does not support detailed configuration.
- The -/+ buttons can be used to adjust **Zoom**.
- The screen can be relocated using the up/down/left/right buttons.

Detail

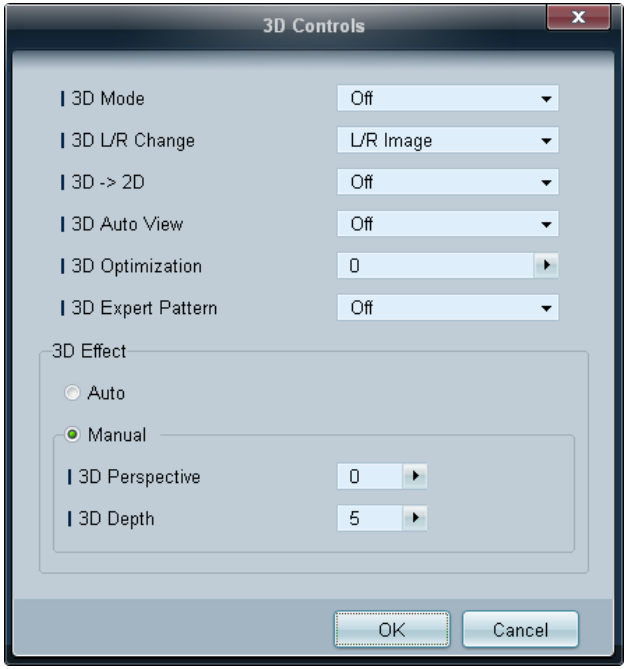
- You can view details of the selected screen size.

PC Screen Adjustment

- Frequency adjustment or fine-tuning is available by using the -/+ buttons in **Coarse** or **Fine**.
- To relocate the screen, click one of the four images below **Position**.
- To automatically adjust the frequency, fine-tune or relocate the screen, click **Auto Adjustment**.

Advanced features

3D Control



3D Mode

Select the 3D input format.

3D L/R Change

Swap the left and right pictures.

3D → 2D

Displays the image for the left eye only.

3D Auto View

If you set **3D Auto View** to **Message Notice**, a pop up message window appears when the product receives a 3D signal.

3D Optimization

The overall adjustment of 3D effect.

3D Expert Pattern

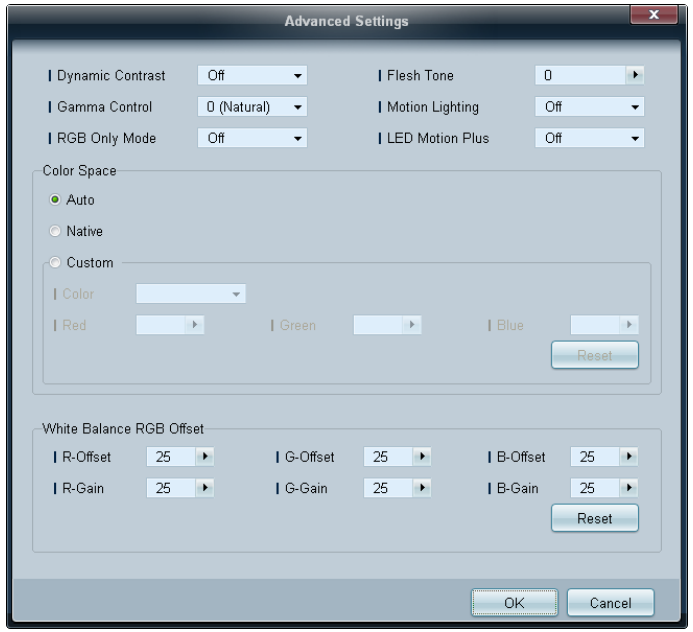
View a 3D pattern.

3D Effect

Adjust 3D effects like perspective and depth for your preferred 3D viewing experience.

- **Auto**: Automatically adjust the perspective and depth settings in accordance with the 3D input source.
- **Manual**: Manually adjust the perspective and depth settings.

Advanced Settings



Dynamic Contrast

Adjust the screen contrast.

Gamma Control

Adjust the primary color intensity.

RGB Only Mode

Displays the **Red**, **Green** and **Blue** color for making fine adjustments to the hue and saturation.

Flesh Tone

Emphasize pink "Flesh Tone."

Motion Lighting

Reduces power consumption by reducing screen brightness when the picture on the screen is in motion.

LED Motion Plus

Removes blur and judder from scenes with larger amounts of rapid movement to provide a clearer picture.

Color Space

Adjusts the range and variety of color (the color space) available to create images.

- **Auto** / **Native** / **Custom**
  - To adjust **Color**, **Red**, **Green**, **Blue** and **Reset**, set **Color Space** to **Custom**.

White Balance

Adjust the color temperature for a more natural picture.

- **R-Offset** / **G-Offset** / **B-Offset**
  Adjust each color (red, green, blue) darkness.
- **R-Gain** / **G-Gain** / **B-Gain**
  Adjust each color (red, green, blue) brightness.
- **Reset**
  Resets the **White Balance** to it's default settings.

Sound Adjustment

– The **Bass** or **Treble** item will be disabled if the item is not supported by the selected set.

You can change the sound settings.

Choose display devices from the list of sets, and select the **Sound** tab.

Bass

- Adjust the bass for the selected display.

Treble

- Adjust the treble for the selected display.

Balance(L/R)

- Adjust the volume of the left and right speakers of the selected display device.

SRS TS XT

- Enable or disable the **SRS TS XT** effect for the selected display device.

System Setup

Video Wall

Choose display devices from the list of sets, and select the **System** tab.

The **Video Wall** function can be used to display part of a whole picture or repeat the same picture on each of connected multiple display devices.

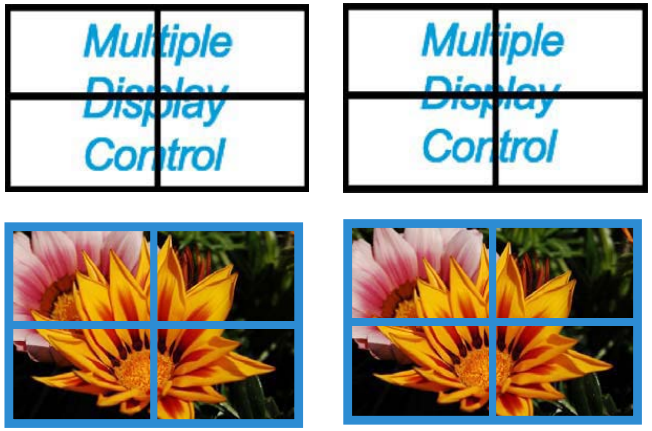
— **Video Wall** is enabled only when devices are in the group.

Video Wall

- Enable or disable **Video Wall**.

Format

- Select the format to display the split screen.



Full Natural

H

- Select the number of horizontal display devices.
- A maximum of 15 displays can be arranged in a row.
  - A maximum of 6 can be assigned to **V** if 15 is assigned to **H**.

V

- Select the number of vertical display devices.
- A maximum of 15 displays can be arranged in a row.
  - A maximum of 6 can be assigned to **H** if 15 is assigned to **V**.

Screen Position

- View the layout of displays (configured by the screen divider) or change the layout as required.
- **Screen Position** and **Preview** are enabled when **Video Wall** is set to on.
- Note that if multiple sets are selected, **Preview** is enabled only if the settings for **H** and **V** match the layout of the selected sets.
- To change the **Position**, select a set and drag it to a new position.
  - The range of screen divider settings may differ depending on the model.

PIP

- Basic information required to adjust PIP will appear in the menu screen.
- **PIP** will be disabled when **Video Wall** is **On**.
- Note that **Picture Size** is disabled when PIP is **On**.

PIP Size

- View the **PIP Size** of the current display.

PIP Source

- Select a PIP input source.

Sound Select

- Select and enable the sound from either the primary screen or secondary screen.

Channel

- The channel can be changed if **PIP Source** is **TV**.

General

User Auto Color

- Automatically adjust the screen colors.

  — Available only in **PC** mode.

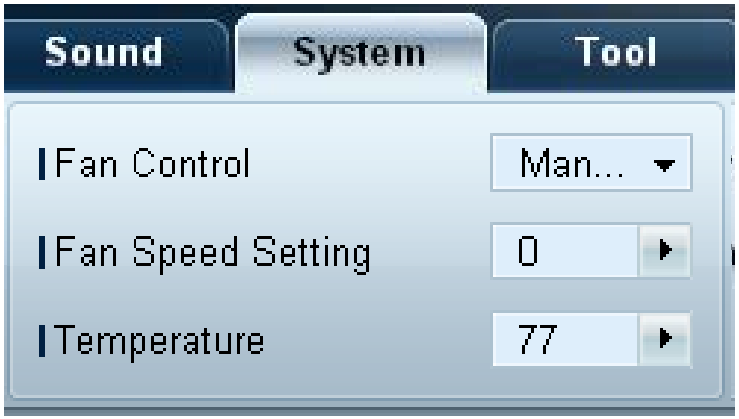
Auto Power

- Set the product to automatically power on.

Standby Control

- Set the standby mode to activate if an input source is not detected.

Fan & Temperature



Configure the settings required to detect the fan speed and internal temperature for the product's protection.

Fan Control

- Select a method to configure the fan speed.

Fan Speed Setting

- Configure the fan speed.

Temperature

- Detect the internal temperature by specifying the range of temperature.

Security

Safety Lock

- Lock the on-screen menus.

  — To unlock the menus, set **Safety Lock** to **Off**.

Button Lock

- Lock the buttons on the display device.

  — To unlock the buttons, set **Button Lock** to **Off**.

OSD Display

Source OSD

- Select whether to display a message when the **Source** is changed.

Not Optimum Mode OSD

- Select whether to display a message when a non-compatible mode is selected.

No Signal OSD

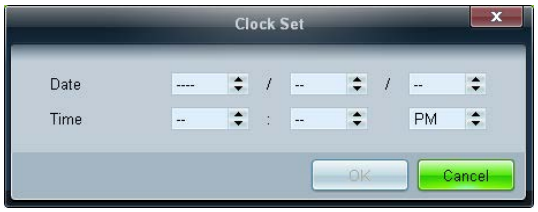
- Select whether to display a message when there is no input signal.

MDC OSD

- Select whether to display a message when settings are changed by the MDC.

Time

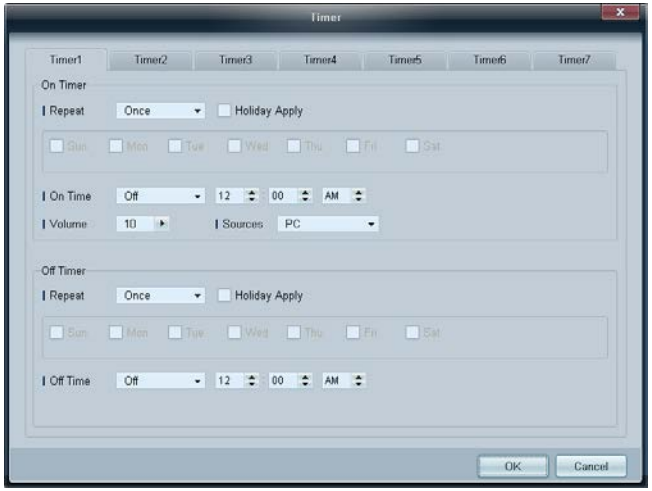
Clock Set



Change the current time on the selected display device according to the time set on a PC.

If the time is not set on the display device, null values will be displayed.

Timer



On Timer

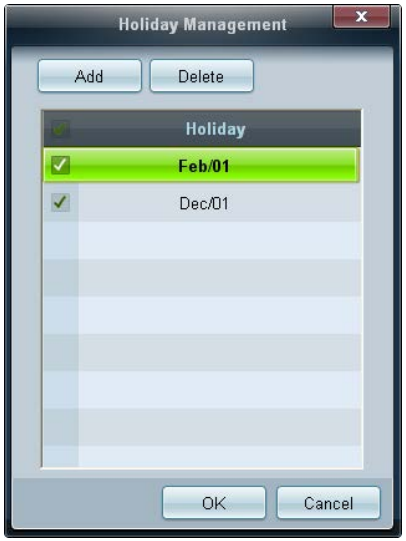
- **Repeat**: Specify the period for which you want to repeat the selected **Timer**.
  Once, **EveryDay**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun**, **Manual**
- **Holiday Apply**: The **Holiday Management** settings can be applied to the **Timer**.
- **On Time**: Set the time to power on the selected display device.
- **Volume**: Specify the volume of the display device when it is powered on by **On Time**.
- **Source**: Specify the input source of the display device when it is powered on by **On Time**.

Off Timer

- **Repeat**: Specify the period for which you want to repeat the selected **Timer**.
  Once, **EveryDay**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun**, **Manual**
- **Holiday Apply**: The **Holiday Management** settings can be applied to the **Timer**.
- **Off Time**: Set the time to power off the selected display device.

— The checkboxes to select days of the week below **Repeat** are enabled only if **Manual** is selected.

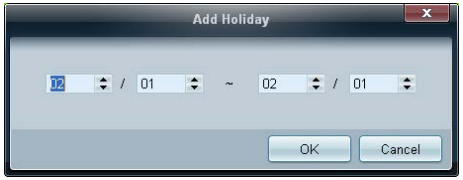
Holiday Management



Holiday Management allows you to prevent devices that are set to be powered on by the **Timer** from turning on at a specified date.

— The **Holiday Management** function can be enabled or disabled in the **Timer** settings menu.

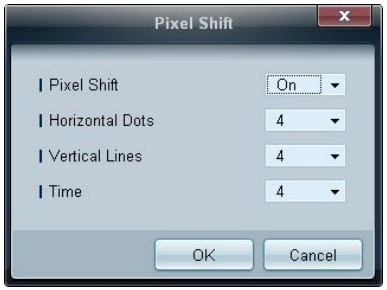
- **Add**: You can specify holidays.
  Click the **Add** button in the **Holiday Management** window.



- **Delete**: Delete holidays. check the corresponding checkboxes and click this button.
- List of holidays: View a list of holidays you have added.

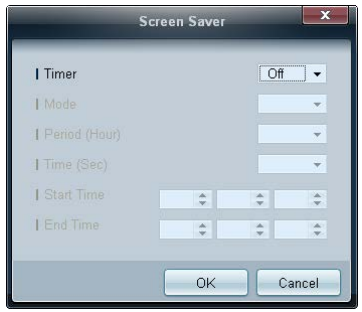
Screen Burn Protection

Pixel Shift

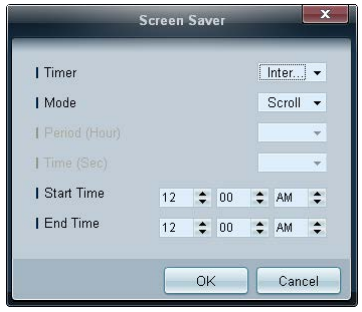


Move the screen slightly at specified time intervals to prevent screen burn-in.

Screen Saver



— **Period (Hour)** and **Time (Sec)** can be configured when **Repeat** is selected.



— **Start Time** and **End Time** can be configured when **Interval** is selected.

This function prevents screen burn-in when the screen of the selected display device is left idle for an extended period of time.

Timer: You can set the timer for **Screen Saver**.

- **Off**
- **Repeat**: Display the image retention-preventive pattern set in **Mode** at specified time intervals (**Period**).
- **Interval**: Display the image retention-preventive pattern set in **Mode** for a specified period of time (from **Start Time** to **End Time**).
- **Mode**: Select a screen protective pattern to display.
- **Period (Hour)**: Specify the time interval to activate the **Screen Saver** function.
  — The option is enabled when **Repeat** is selected for **Timer**.
- **Time (Sec)**: Specify the duration to keep the **Screen Saver** function on.
  — The option is enabled when **Repeat** is selected for **Timer**.
- **Start Time**: Set start time to display screen saver.
  — The option is enabled when **Interval** is selected for **Timer**.
- **End Time**: Set end time to display screen saver.
  — The option is enabled when **Interval** is selected for **Timer**.

Safety Screen

The **Safety Screen** function can be used to prevent screen burn-in when a stationary image displays on the screen of a display device for an extended period of time.

Lamp Control

Lamp Control is used to adjust the backlight to reduce power consumption.

Automatically adjust the backlight of the selected display device at a specified time.

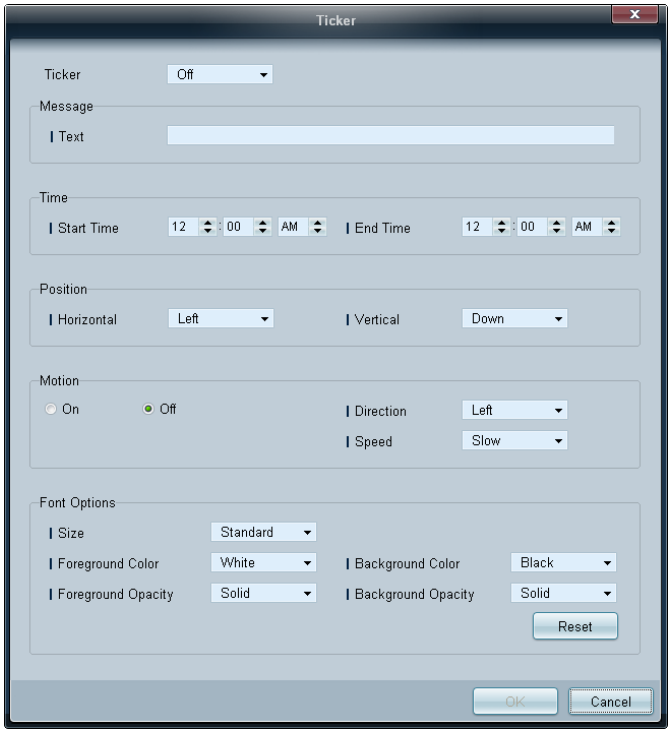
If **Manual Lamp Control** is adjusted, **Auto Lamp Control** will automatically switch to **Off**.

Manually adjust the backlight for the selected display.

If **Auto Lamp Control** is adjusted, **Manual Lamp Control** will automatically switch to **Off**.

- **Ambient Light**: **Ambient Light** detects ambient light intensity and automatically adjusts the screen brightness of all the LFDs in the same serial chain.

Ticker



Input text while a video or image is displayed and display the text on the screen.

Ticker

Enable or disable **Ticker**.

- **Off** / **On**

Message

Enter a message to display on the screen.

Timer

Set the **Start Time** and **End Time** to display a message (**Message**).

Position

Select an orientation to display a message (**Message**) from **Horizontal** and **Vertical**.

Motion

Specify the **Direction** and **Speed** to display a message (**Message**).

Font Options

Specify the message **Size**, **Foreground Color**, **Foreground Opacity**, **Background Color** and **Background Opacity**.

Tool Settings

Security

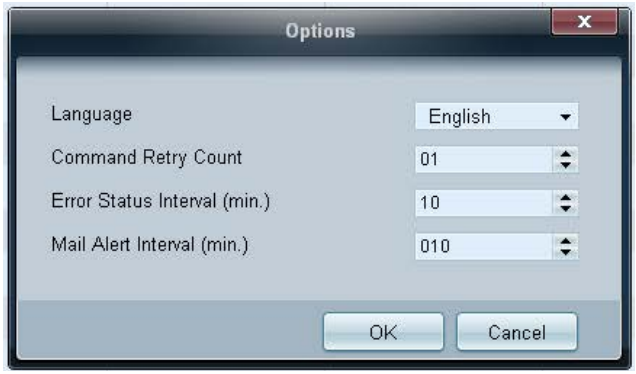
- **Panel Control**: Turn on or off the screen of a display device.
- **Remote Control**: Enable or disable the remote control.

Reset

- **Reset Picture**: Reset the screen settings.
- **Reset Sound**: Reset the sound settings.
- **Reset System**: Reset the system settings.
- **Reset All**: Reset the screen, sound and system settings at the same time.

Edit Column

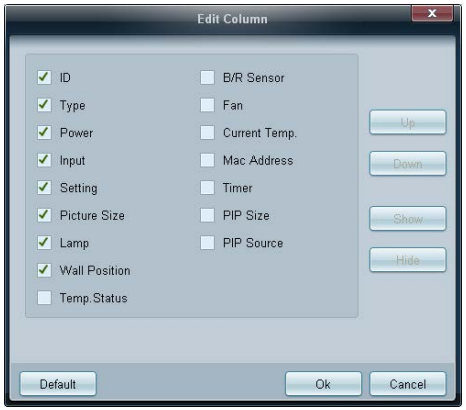
Options



Configure the settings for the items that will be displayed on the list of displays.

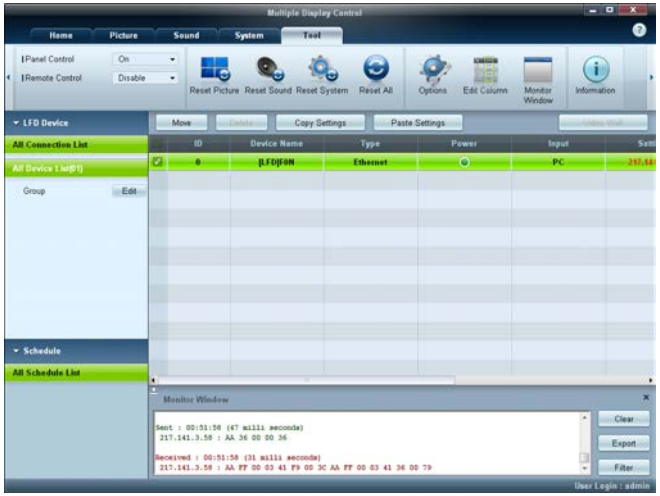
- **Language**: Select a language to use in the MDC program. After selecting a language, restart the MDC program to use the selected language.
- **Command Retry Count**: Specify the number of retry attempts when a command fails.
- **Error Status Interval**: Specify the time interval to query the display device in order to check if "**Fault Device**" has occurred.
- **Mail Alert Interval**: Specify the time interval for email notifications in the event when "**Fault Device**" occurs.

Edit Column



Select the items you want to display in the list of sets.

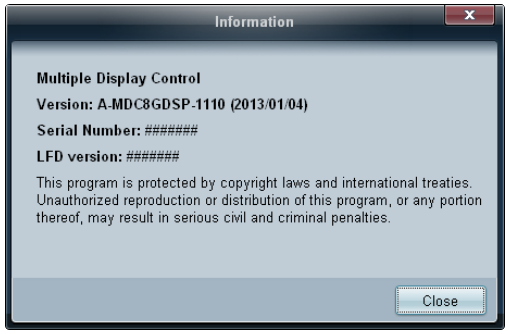
Monitor Window



A window appears showing details for data transfer between the computer and display devices.

- **Filter**

Information


Information
Multiple Display Control
Version: A-MDC8GDSP-1110 (2013/01/04)
Serial Number: #######
LFD version: #######
This program is protected by copyright laws and international treaties. Unauthorized reproduction or distribution of this program, or any portion thereof, may result in serious civil and criminal penalties.
Close

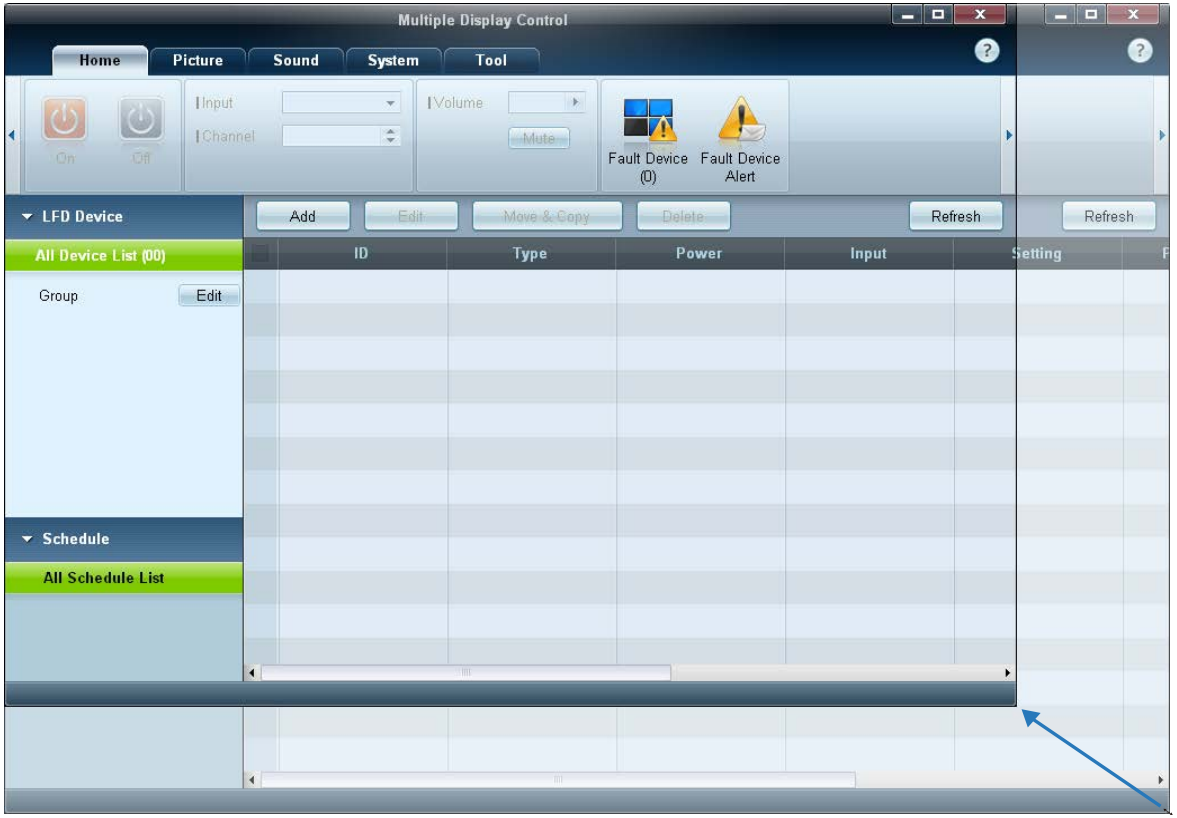
View the program information.

Other Functions

Resizing a Window

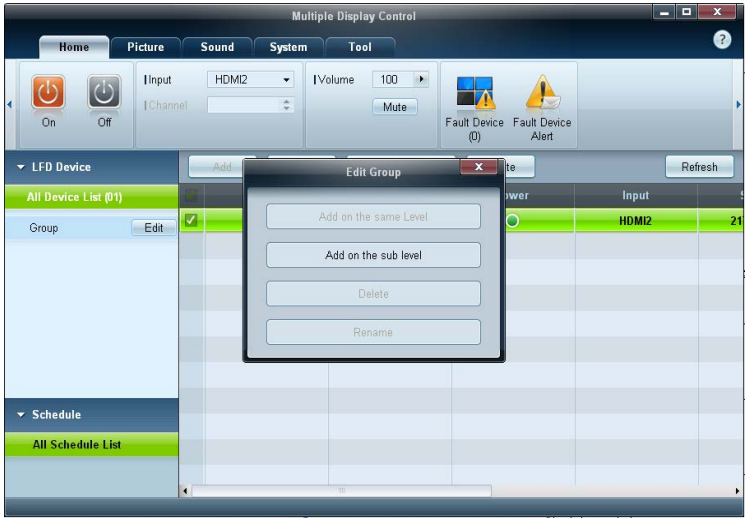
Place the mouse pointer on a corner of the program window. An arrow will appear.

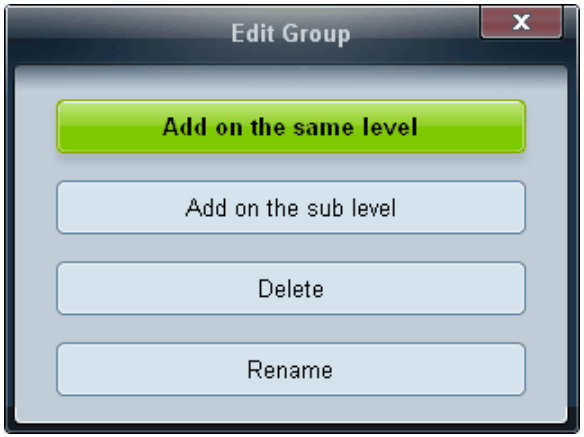
Move the arrow to customize the size of the program window.



Group Management

Creating Groups





– The **Add on the same level** button is enabled only if at least one group is created.

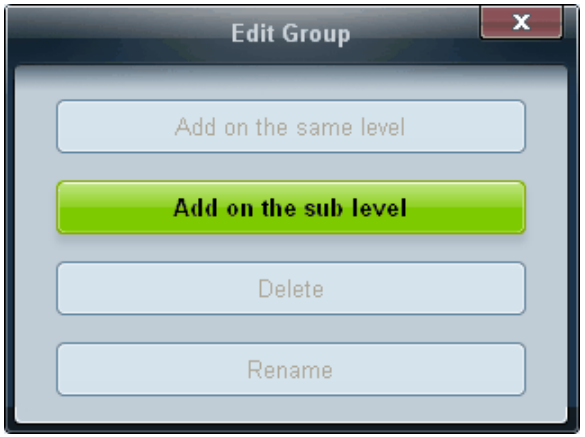
Create groups and manage the list of sets on a group basis.

— Duplicate group names cannot be used.

1 Right-click and select **Group** → **Edit** in the display device list section on the left side of the program window.

2 In the **Edit Group** window displayed, click **Add on the same level** or **Add on the sub level**.

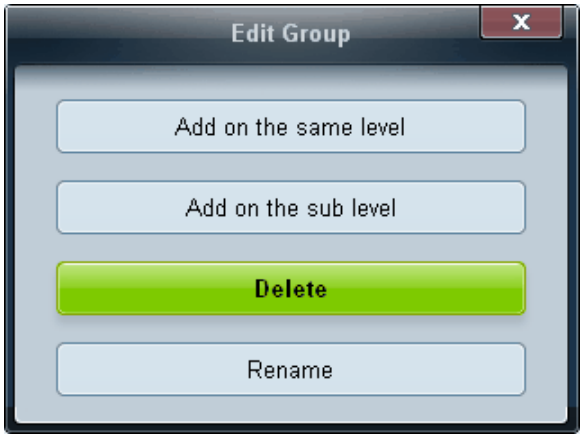
- **Add on the same level**: Create a group on the same level as the selected group.



- **Add on the sub level**: Create a sub-group under the selected group.

3 Enter the group name.

Deleting Groups

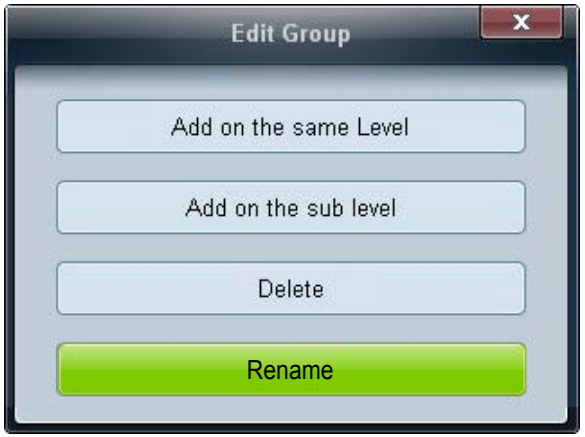


1 Select a group name, and click **Edit**.

2 In the **Edit Group** window displayed, click **Delete**.

3 Click **Yes**. The group will be deleted.

Renaming Groups

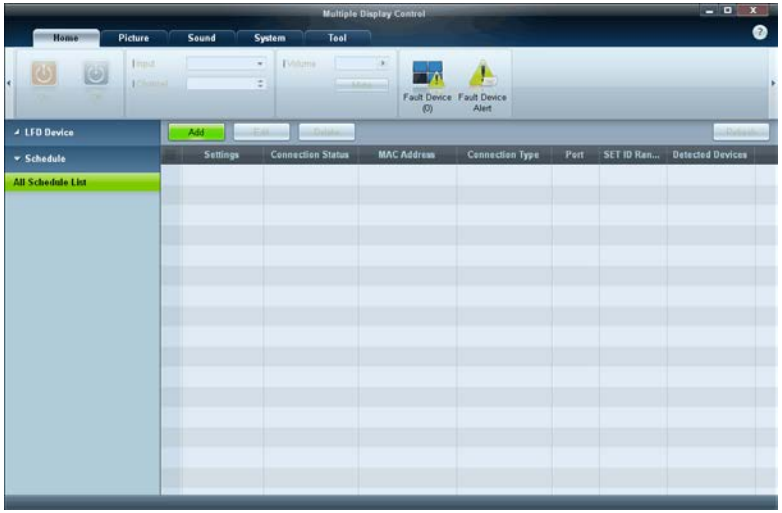


1 Select a group name, and click **Edit**.

2 In the **Edit Group** window displayed, click **Rename**.

3 If a cursor appears in the old group name, enter a new group name.

Schedule Management



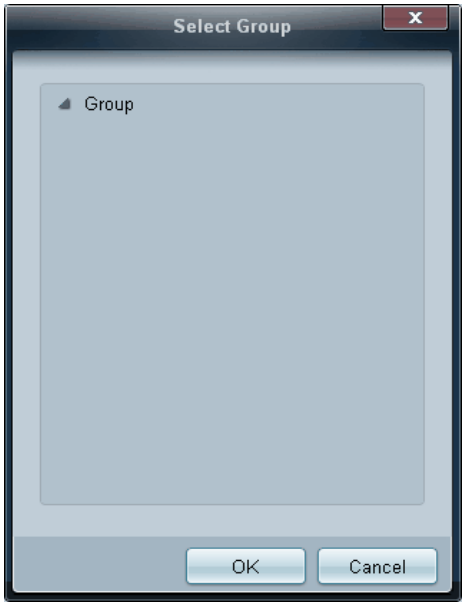
Creating Schedules

Create and register a schedule on a group basis.

1 Click **All Schedule List** in the schedule section on the left side of the program window. The **Add** button will be enabled in the middle.

2 Click the **Add** button. The **Add Schedule** window will appear.

3 Click **Add** below the **Device Group** item, and select the group you want to add a schedule to.



4 Select **Date&Time**/**Action** and click **OK**. The schedule will be added and a list of schedules will appear in the set list window.

- **Device Group**: Select a group.
- **Date&Time**
  Instant Execution: Run the schedule immediately.
  Timer: Set the date, time and interval to run the schedule.
- **Action**: Select a function that will activate at the specified time and interval.

Schedule Modification

To modify a schedule, select the schedule and click **Edit**.

Deleting a Schedule

To delete a schedule, select the schedule and click **Delete**.

Troubleshooting Guide

– This program may malfunction sometimes due to a communication problem between the PC and display or electromagnetic waves emitted from nearby electronic devices.

Issue	Solution
The display you want to control does not appear on the system information chart.	1 Check the connection of the RS232C cable (check that the cable is properly connected to appropriate serial port). 2 Check that another display with a duplicate ID is not connected. Connecting displays with a duplicate ID can cause the displays not to be shown due to data collision. 3 Check that the display ID is within the range of 0 and 99. (Change the ID using the Display menu.) — For a display that supports the ID in a range of 0 to 99, the **ID** should be set between 0 and 99.
The display you want to control does not appear on the other Control Info Grids.	Check that the display is powered on. (See the power status in the system information chart.) Ensure you select the input source the display is connected to.
The following message appears repeatedly. 	Check that the display you want to control is selected.
Displays power on or off at different time from one another even though On Time or Off Time is set.	Adjust the time on the PC to synchronize the time between the connected displays.
The remote control does not work.	The remote control may not work if the RS-232C cable is removed or the program is closed abnormally while the **Remote Control** function is **Disable**. To resolve this, run the program again and set **Remote Control** to **Enable**.

How display properties are shown when multiple displays are used

1 When no display is selected: The default value is displayed.

2 When one display is selected: Settings for the selected display are displayed.

3 When two displays are selected (e.g. in sequence of **ID** 1 and **ID** 3): The settings for **ID** 1 are displayed before the settings for **ID** 3.

4 When the **All**+**Select** checkbox is checked and all displays are selected: The default settings are displayed.

Chapter 05
Screen Adjustment

Configure the **Picture** settings (**Backlight**, **Color Tone**, etc.).

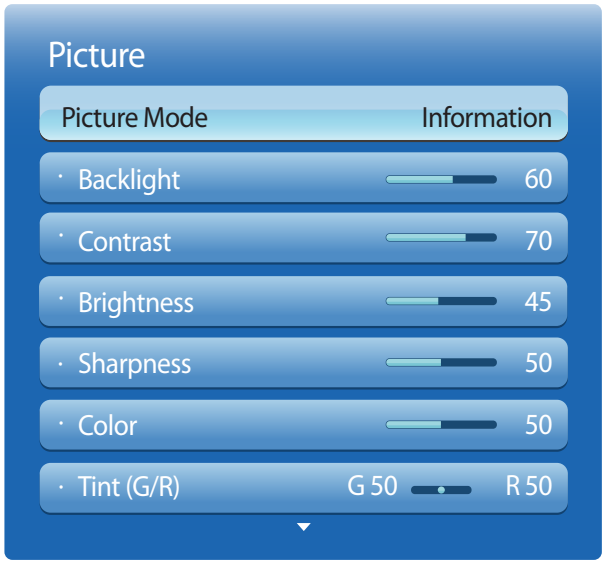
– The layout of the **Picture** menu options may vary depending on the product.

Picture Mode

MENU → **Picture** → **Picture Mode** → **ENTER**

Select a picture mode (**Picture Mode**) suitable for the environment where the product will be used.

Different **Picture Mode** options are displayed depending on the current input source.



– The displayed image may differ depending on the model.

If the input source is PC, DVI or DisplayPort

- **Information**: This mode reduces eye fatigue and is suitable for displaying information to the public.
- **Advertisement**: This mode is suitable for displaying video content and indoor/outdoor advertisements.
- **Calibration**: In this mode, the brightness, color, gamma and uniformity settings customized using the color calibration program **Advanced Color Management** are applied.

  — To apply the **Calibration** mode properly, make sure you configure the picture quality settings, such as brightness, color, gamma and uniformity, using the color calibration program **Advanced Color Management**.

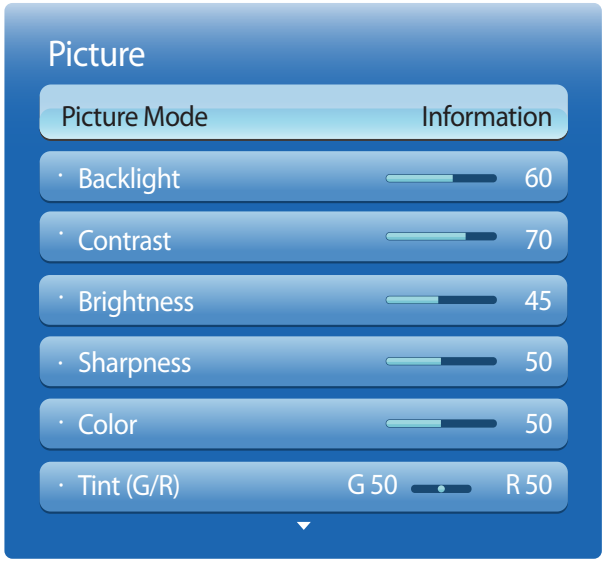
  — To download the **Advanced Color Management** program, visit www.samsunglfd.com.

If the input source is HDMI1, HDMI2

- **Dynamic**: This mode is suitable when the ambient light is bright.
- **Standard**: This mode is generally suitable for any environment.
- **Natural**: Suitable for reducing eye strain.
- **Movie**: This mode reduces eye fatigue.

Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R)

MENU → Picture → ENTER



– The displayed image may differ depending on the model.

Your product has several options for adjusting picture quality.

Input source	Picture Mode	Adjustable options
PC, DVI, DisplayPort, HDMI1 (when a PC is connected), HDMI2 (when a PC is connected)	Information	Backlight / Contrast / Brightness / Sharpness
	Advertisement	Backlight / Contrast / Brightness / Sharpness / Color
	Calibration	Backlight
HDMI1, HDMI2	Dynamic, Standard, Natural, Movie	Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R)

— When you make changes to **Backlight**, **Contrast**, **Brightness**, **Sharpness**, **Color** or **Tint (G/R)**, the OSD will be adjusted accordingly.

— You can adjust and store settings for each external device you have connected to an input on the product.

— Lowering picture brightness reduces power consumption.

Screen Adjustment

MENU → Picture → Screen Adjustment → ENTER

– The displayed image may differ depending on the model.

Picture Size

choose size and aspect ratio picture displayed on screen.

— Different **Screen Adjustment** options are displayed depending on the current input source.

- **16:9**: Sets the picture to **16:9** wide mode.
- **Zoom1**: Use for moderate magnification. Cuts off the top and sides.
- **Zoom2**: Use for a stronger magnification.
- **Smart View 1**: Reduces the **16:9** picture by 50%.
  — **Smart View 1** is enabled only in **HDMI1**, **HDMI2** mode.
- **Smart View 2**: Reduces the **16:9** picture by 25%.
  — **Smart View 2** is enabled only in **HDMI1**, **HDMI2** mode.
- **Wide Fit**: Enlarges the aspect ratio of the picture to fit the entire screen.
- **4:3**: Sets the picture to basic (**4:3**) mode.
  — Do not set your product to **4:3** format for a long time.
  The borders displayed on the left and right, or top and bottom of the screen may cause image retention (screen burn) which is not covered by the warranty.
- **Screen Fit**: Displays the full image without any cut-off when **HDMI1**, or **HDMI2** (720p / 1080i / 1080p) signals are inputted.
- **Custom**: Changes the resolution to suit the user's preferences.
- **Original Ratio**: If the input source is **PC**, **DVI**, **HDMI1**(PC connection), **HDMI2** (PC connection), or **DisplayPort**, the video will display in the original aspect ratio.
  — Available ports may differ depending on the model.

Picture Sizes available by Input Source.

Input Source	Picture Size
HDMI1, **HDMI2** (720p, 1080i, 1080p)	**16:9**, **Smart View 1**, **Smart View 2**, **Wide Fit**, **4:3**, **Screen Fit**, **Custom**
HDMI1, **HDMI2** (480i, 480p)	**16:9**, **Zoom1**, **Zoom2**, **Smart View 1**, **Smart View 2**, **4:3**, **Custom**
PC, **DVI**, **DisplayPort**, **HDMI1**(when a PC is connected), **HDMI2** (when a PC is connected)	**16:9**, **4:3**, **Original Ratio**

Position

– The displayed image may differ depending on the model.

Adjusts the picture position. **Position** is only available if **Picture Size** is set to **Zoom1**, **Zoom2**, **Wide Fit**, **Screen Fit** or **Custom**.

— To use the **Position** function after selecting **Zoom1**, **Zoom2**, **Wide Fit** or **Screen Fit**, follow these steps.

1 Press the ▼ button to select **Position**. Press the ↵ button.

2 Press the ▲ or ▼ button to move the picture up or down.

3 Press the ↵ button.

Zoom/Position

– The displayed image may differ depending on the model.

— To use the **Zoom/Position** function after selecting **Screen Fit** in **HDMI1**, **HDMI2** (1080i/1080p) or **Custom**, follow these steps.

1 Press the ▼ button to select **Zoom/Position**. Press the ↵ button.

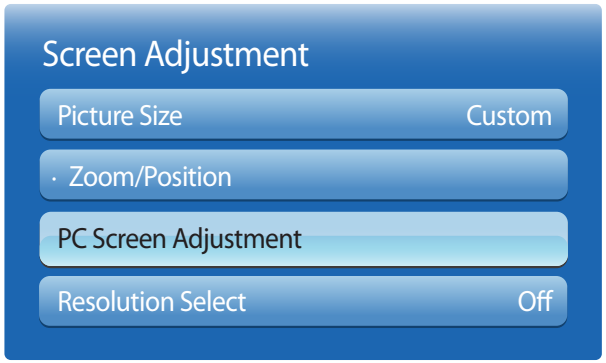
2 Select the **Zoom** or **Position**. Press the ↵ button.

3 Press the ▲/▼/◄/► button to move the picture.

4 Press the ↵ button.

— If you want to reset the picture to its original position, select **Reset** in the **Zoom/Position** screen. The picture will be set to its default position.

PC Screen Adjustment



- Available in **PC** mode only.
- The displayed image may differ depending on the model.

- **Coarse** / **Fine**
  Removes or reduces picture noise.
  If the noise is not removed by Fine-tuning alone, use the **Coarse** function to adjust the frequency as best as possible (**Coarse**) and Fine-tune again. After the noise has been reduced, re-adjust the picture so that it is aligned with the center of screen.
- **Position**
  To adjust the PC's screen position if it is not centered or does not fit the product screen.
  Press the ▲ or ▼ button to adjust the Vertical Position. Press the ◄ or ► button to adjust the Horizontal Position.
- **Image Reset**
  Resets the image to the default settings.

Resolution Select

- Available in **PC** mode only.
- The displayed image may differ depending on the model.

If the picture is not normal even when the resolution of the graphics card is one of the following, you can optimize the picture quality by selecting the same resolution for the product as the PC using this menu.

Available resolutions: **Off** / **1024x768** / **1280x768** / **1360x768** / **1366x768**

Auto Adjustment

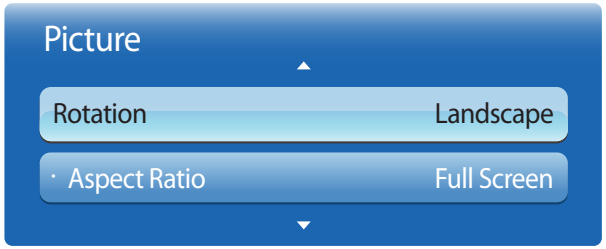
MENU → Picture → Auto Adjustment → ENTER

Adjust frequency values/positions and fine tune the settings automatically.

- Available in **PC** mode only.
- The displayed image may differ depending on the model.

Rotation

MENU → Picture → Rotation → ENTER



Rotate the product screen orientation.

- **Landscape**: Display the screen in landscape mode (default).
- **Portrait**: Display the screen in portrait mode.

— This menu is only available in these modes: **HDMI1** / **HDMI2** (when a PC is connected), **PC**, **DVI**, **DisplayPort**

- The displayed image may differ depending on the model.

Aspect Ratio

MENU → Picture → Aspect Ratio → ENTER

– The displayed image may differ depending on the model.

Set the rotated screen to be either full screen or original.

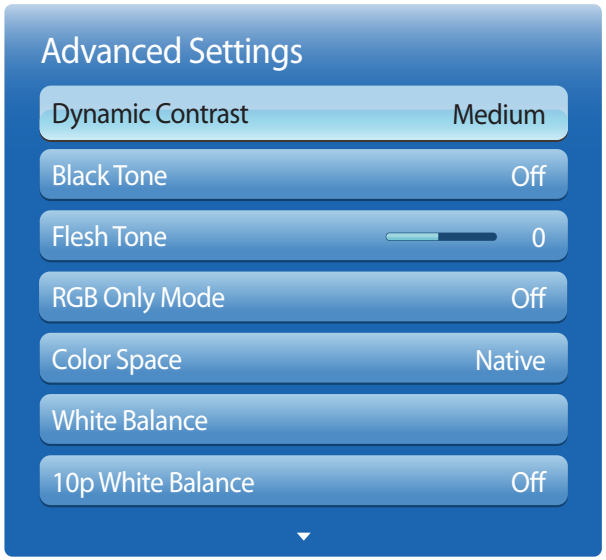
- **Full Screen**: Display the rotated screen in full screen.
- **Original**: Display the rotated screen in the original aspect ratio.

— Available only when **Rotation** is set to **Portrait**.

— This menu is only available in these modes: **HDMI1** / **HDMI2** (when a PC is connected), **PC**, **DVI**, **DisplayPort**

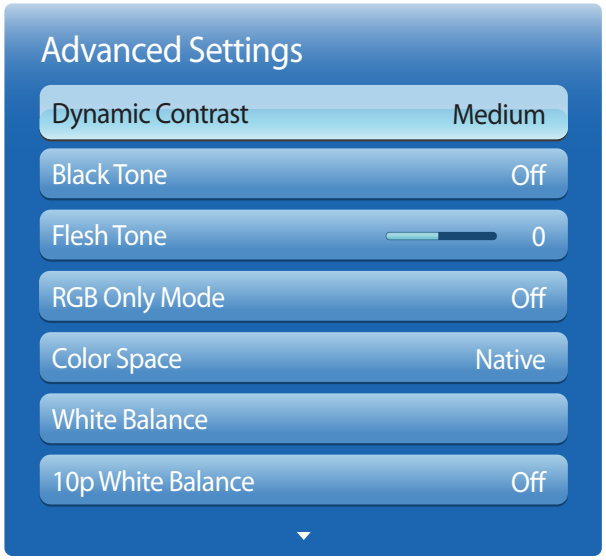
Advanced Settings

MENU → Picture → Advanced Settings → ENTER



– The displayed image may differ depending on the model.

Input Source	Picture Mode	Advanced Settings
PC, DVI, DisplayPort, HDMI1 (when a PC is connected), HDMI2 (when a PC is connected)	Information, Calibration	White Balance / Gamma
	Advertisement	Dynamic Contrast / Black Tone / Flesh Tone / Color Space / White Balance / Gamma
HDMI1, HDMI2	Natural, Dynamic	Not available
HDMI1, HDMI2	Standard	Dynamic Contrast / Black Tone / Flesh Tone / RGB Only Mode / Color Space / White Balance / Gamma / Expert Pattern / Motion Lighting
	Movie	Dynamic Contrast / Black Tone / Flesh Tone / RGB Only Mode / Color Space / White Balance / 10p White Balance / Gamma / Expert Pattern



– The displayed image may differ depending on the model.

Dynamic Contrast

Adjust the screen contrast.

- **Off** / **Low** / **Medium** / **High**

Black Tone

Select the black level to adjust the screen depth.

- **Off** / **Dark** / **Darker** / **Darkest**

Flesh Tone

Emphasize pink **Flesh Tone**.

RGB Only Mode

Displays the **Red**, **Green** and **Blue** color for making fine adjustments to the hue and saturation.

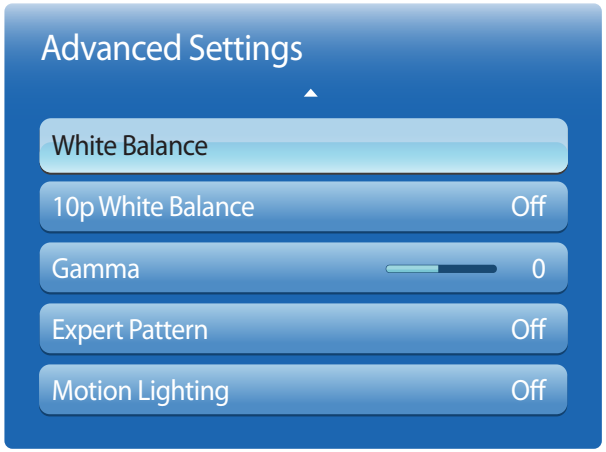
- **Off** / **Red** / **Green** / **Blue**

Color Space

Adjusts the range and variety of colors (the color space) available to create images.

- **Auto** / **Native** / **Custom**

  — To adjust **Color**, **Red**, **Green**, **Blue** and **Reset**, set **Color Space** to **Custom**.



– The displayed image may differ depending on the model.

White Balance

Adjust the color temperature for a more natural picture.

- **R-Offset** / **G-Offset** / **B-Offset**: Adjust each color's (red, green, blue) darkness.
- **R-Gain** / **G-Gain** / **B-Gain**: Adjust each color's (red, green, blue) brightness.
- **Reset**: Resets the **White Balance** to its default settings.

10p White Balance

Controls the white balance in 10 point interval by adjusting the red, green, and blue brightness.

- **Off** / **On**

Interval: Select interval to adjust.

Red: Adjust the red level.

Green: Adjust the green level.

Blue: Adjust the blue level.

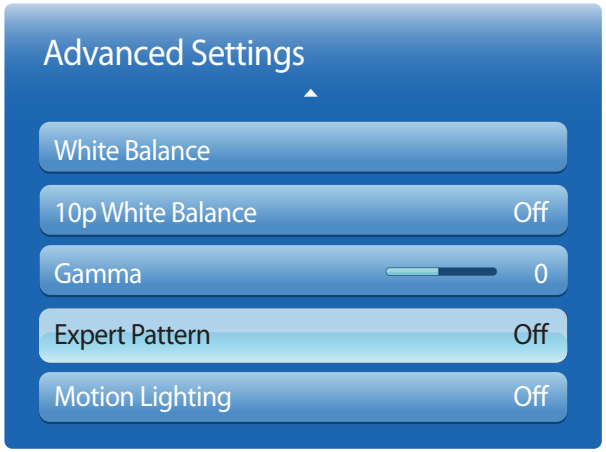
Reset: Resets the **10p White Balance** to its default settings.

— Available when the **Picture Mode** is set to **Movie** and when the external input is set to all input.

— Some external devices may not support this function.

Gamma

Adjust the primary color intensity.



– The displayed image may differ depending on the model.

Expert Pattern

Use the **Expert Pattern** function to calibrate the picture.

If the OSD menu disappears or a menu other than the **Picture** menu is opened, the product saves the calibration and the **Expert Pattern** screen disappears.

- **Off**: Turns the **Expert Pattern** function off.
- **Pattern1**: This test screen demonstrates the effect of the display settings on shades of grey and black.
- **Pattern2**: This test screen demonstrates the effect of the display settings on colors.

— After selecting **Pattern1** or **Pattern2**, you can adjust any of the advanced settings for desired effect.

— While the **Expert Pattern** is running, sound is not outputted.

— Only enabled on **HDMI1**, **HDMI2** modes.

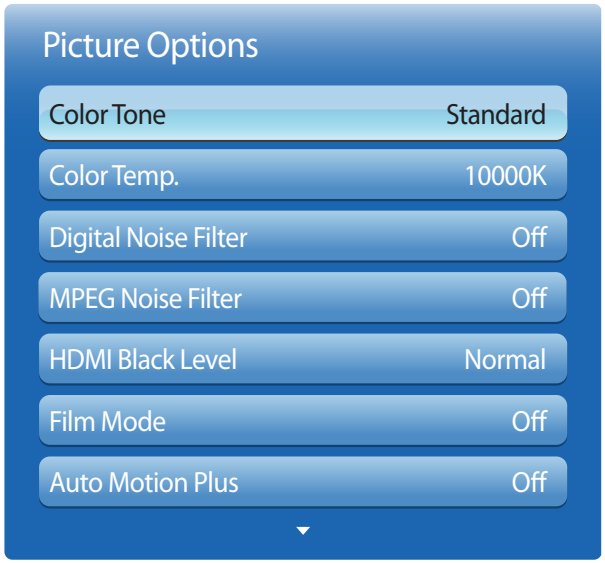
Motion Lighting

Reduces power consumption by reducing screen brightness when the picture on the screen is in motion.

- **Off** / **On**

Picture Options

MENU → Picture → Picture Options → ENTER

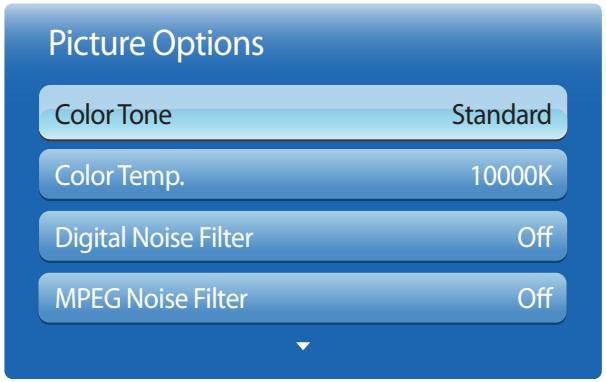


– The displayed image may differ depending on the model.

Select an option using the ▲ and ▼ arrow keys, and the press ↵.

Use the arrow keys to change the setting, and then press ↵.

Input source	Picture Mode	Picture Options
PC, DVI	Information	Color Tone / Color Temp. / HDMI Black Level / Calibrated Value / Dynamic Backlight
	Advertisement	Color Tone / Color Temp. / Digital Noise Filter / MPEG Noise Filter / HDMI Black Level / Auto Motion Plus / Calibrated Value / Dynamic Backlight
	Calibration	Dynamic Backlight
HDMI1(when a PC is connected), HDMI2 (when a PC is connected)	Information	Color Tone / Color Temp. / HDMI Black Level / Dynamic Backlight
	Advertisement	Color Tone / Color Temp. / Digital Noise Filter / MPEG Noise Filter / HDMI Black Level / Auto Motion Plus / Dynamic Backlight
	Calibration	HDMI Black Level / Dynamic Backlight
DisplayPort	Information	Color Tone / Color Temp. / Dynamic Backlight
	Advertisement	Color Tone / Color Temp. / Digital Noise Filter / MPEG Noise Filter / Auto Motion Plus / Dynamic Backlight
	Calibration	Dynamic Backlight
HDMI1, HDMI2	Dynamic, Standard, Natural, Movie	Color Tone / Color Temp. / Digital Noise Filter / MPEG Noise Filter / HDMI Black Level / Auto Motion Plus / Dynamic Backlight
HDMI1 (1080i), HDMI2 (1080i)	Dynamic, Standard, Natural, Movie	Color Tone / Color Temp. / Digital Noise Filter / MPEG Noise Filter / Film Mode / Auto Motion Plus / Dynamic Backlight



– The displayed image may differ depending on the model.

Color Tone

If the input source is **PC**, **DVI**, **DisplayPort** or **HDMI1** (PC connection), **HDMI2** (PC connection).

- **Off** / **Cool** / **Standard** / **Warm**

If the input source is **HDMI1** or **HDMI2**.

- **Off** / **Cool** / **Standard** / **Warm1** / **Warm2**

— **Warm1** or **Warm2** will be deactivated when the **Picture Mode** is **Dynamic**.

— Settings can be adjusted and stored for each external device connected to an input on the product.

Color Temp.

Adjust the color temperature (**Red**/**Green**/**Blue**). (Range: 3000K–15000K)

— This option is available when **Color Tone** is set to **Off**.

Digital Noise Filter

If the broadcast signal received by your product is weak, you can activate the **Digital Noise Filter** feature to reduce any static and ghosting that may appear on the screen.

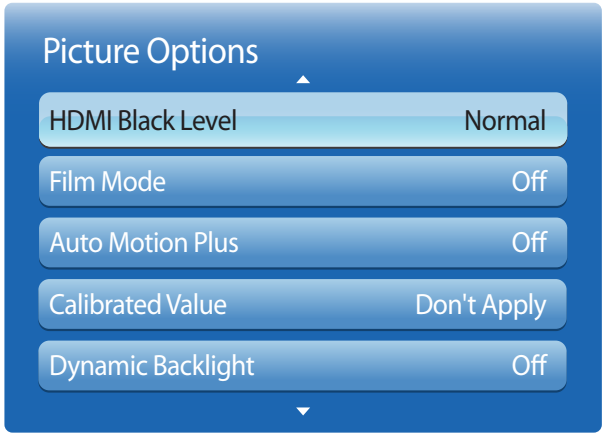
- **Off** / **Low** / **Medium** / **High** / **Auto**

— When the signal is weak, try all the options until the the product displays the best picture.

MPEG Noise Filter

Reduces MPEG noise to provide improved picture quality.

- **Off** / **Low** / **Medium** / **High** / **Auto**



– The displayed image may differ depending on the model.

HDMI Black Level

Selects the black level on the screen to adjust the screen depth.

- **Normal** / **Low**

— Available only in **HDMI1**, **HDMI2** and **DVI** mode (AV Timing : 480p, 576p, 720p, 1080i, 1080p).

Film Mode

This mode is suitable to view movies.

Sets the product to automatically sense and process film signals from all sources and adjust the picture for optimum quality.

- **Off** / **Auto1** / **Auto2**

— Available in **HDMI1**(1080i). or **HDMI2**(1080i).

Auto Motion Plus

Removes blur and judder from scenes with larger amounts of rapid movement to provide a clearer picture.

The menu names may vary depending on the country.

Off : Switches **Auto Motion Plus** off.

Clear : Sets **Auto Motion Plus** to **Clear** (suitable for viewing moving images clearly) mode.

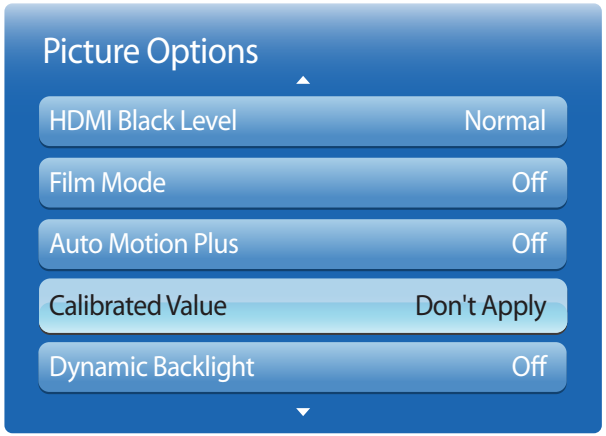
Standard : Sets **Auto Motion Plus** to **Standard** mode.

Smooth : Sets **Auto Motion Plus** to **Smooth** (suitable for viewing moving images naturally) mode.

Custom : Use to reduce the afterimage and judder as much as you want.

Demo : Demonstrates **Auto Motion Plus** (the picture will be displayed on the left half of the screen when **Auto Motion Plus** is set to **On**).

- **Blur Reduction** : Use to reduce the afterimage as much as you want.
  - This is only supported if the **Auto Motion Plus** is set to **Custom**.
- **Judder Reduction** : Use to reduce the judder as much as you want.
  - This is only supported if the **Auto Motion Plus** is set to **Custom**.
- **Reset**: Restore **Auto Motion Plus** settings to default values.
  - The color on screen may vary with this option unintentionally.
  - Disabled when **PIP** is set to **On**.



– The displayed image may differ depending on the model.

Calibrated Value

Select whether to apply the brightness, color, gamma and uniformity settings customized using the color calibration program **Advanced Color Management** to the **Information** and **Advertisement** modes.

- **Don't Apply** / **Apply**

— To download the **Advanced Color Management** program, visit www.samsunglfd.com.

Dynamic Backlight

Automatically adjust the backlight to provide the best possible screen contrast under the current conditions.

- **Off** / **On**

— The **Dynamic Backlight** is not available when the input source is set to **PC** while **Video Wall** is **On**.

Reset Picture

MENU → **Picture** → **Reset Picture** → **ENTER**

– The displayed image may differ depending on the model.

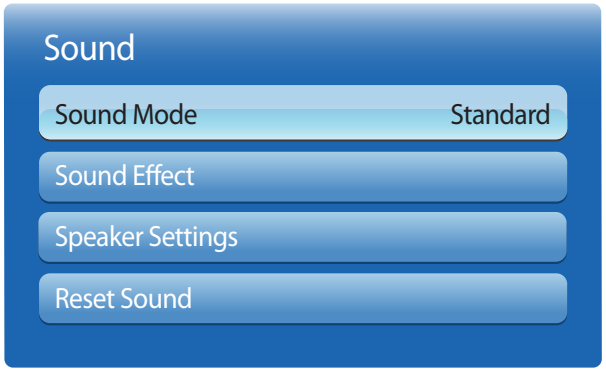
Resets your current picture mode to its default settings.

Chapter 06
Sound Adjustment

Configure the sound (**Sound**) settings for the product.

Sound Mode

MENU → **Sound** → **Sound Mode** → **ENTER**



– The displayed image may differ depending on the model.

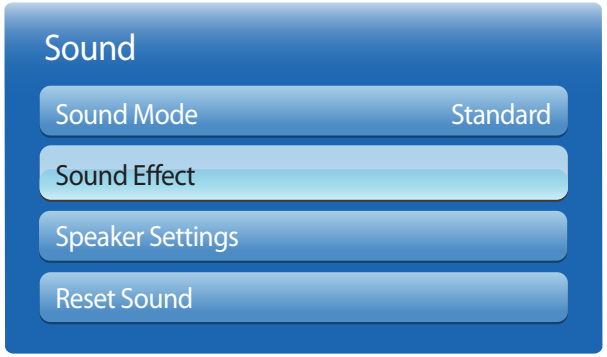
You can select a sound mode to suit your personal preferences.

- **Standard**: Selects the normal sound mode.
- **Music**: Emphasizes music over voices.
- **Movie**: Provides the best sound for movies.
- **Clear Voice**: Emphasizes voices over other sounds.
- **Amplify**: Increase the intensity of high-frequency sound to allow a better listening experience for the hearing impaired.

— If **Speaker Select** is set to **External**, **Sound Mode** is disabled.

Sound Effect

MENU → Sound → Sound Effect → ENTER



– The displayed image may differ depending on the model.

Configure your preferred sound effect for output sound.

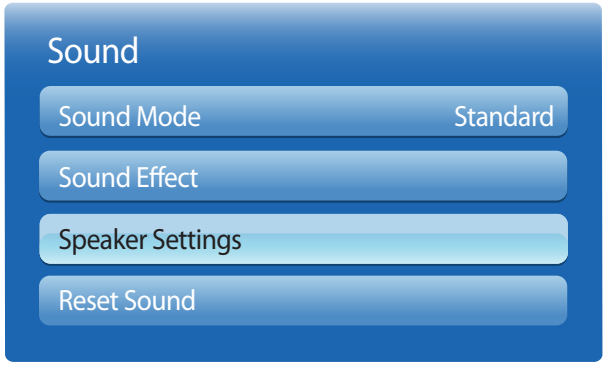
— If **Speaker Select** is set to **External**, **Sound Effect** is disabled.

— Available only when **Sound Mode** is set to **Standard**.

- **Virtual Surround** (**Off** / **On**)
  This function provides a virtual 5.1 channel surround sound experience through a pair of speakers using HRTF(Head Related Transfer Function) technology.
- **Dialog Clarity** (**Off** / **On**)
  This function allows you to increase the intensity of a voice over background music or sound effects so that dialog can be heard more clearly.
- **Equalizer**
  Use **Equalizer** to customize sound setting for each speaker.
  – **Balance L/R**: Adjusts the balance between the right and left speaker.
  – **100Hz** / **300Hz** / **1kHz** / **3kHz** / **10kHz** (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.
  – **Reset**: Resets the equalizer to its default settings.

Speaker Settings

MENU → Sound → Speaker Settings → ENTER



– The displayed image may differ depending on the model.

- **Speaker Select** (**External** / **Internal**)

  If you are listening to the sound track of a broadcast or movie through an external receiver, you may hear a sound echo caused by the difference in decoding speed between the products speakers and the speakers attached to your audio receiver. If this occurs, set the product to **External**.

  — When you set **Speaker Select** to **External**, the products speakers are turned off.

  You will hear sound through the external speakers only. When the **Speaker Select** is set to **Internal**, both the product speakers and the external speakers are on. You will hear sound through both.

  — If there is no video signal, both the products speakers and the external speakers will be mute.

- **Auto Volume** (**Off** / **Normal** / **Night**)

  The volume can vary depending on the channel.

  Automatically equalize the volume level when switching to another channel.

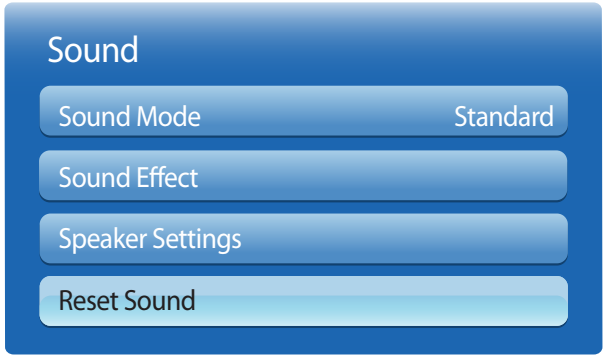
  – **Normal** equalizes the volume level on each channel, so that when you change channels, the volume level is the same.

  – **Night** equalizes and decrease the volume level on each channel, so each channel is quieter. **Night** is useful at night, when you may want to keep the volume low.

  — To use the volume control of a connected source device, set **Auto Volume** to **Off**. A change to the volume control of the connected source device may not be applied if **Auto Volume** is set to **Normal** or **Night**.

Reset Sound

MENU → Sound → Reset Sound → ENTER



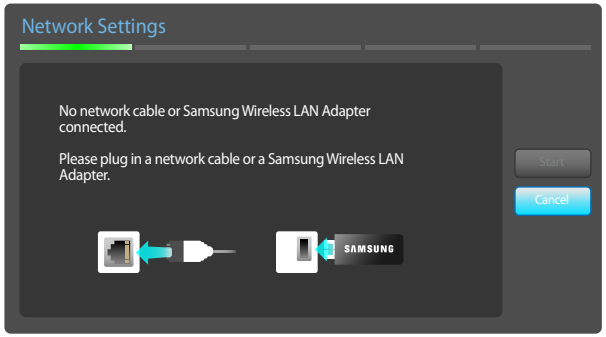
– The displayed image may differ depending on the model.

Reset all sound settings to the factory defaults.

Chapter 07
Network

Network Settings

MENU → Network → Network Settings → ENTER

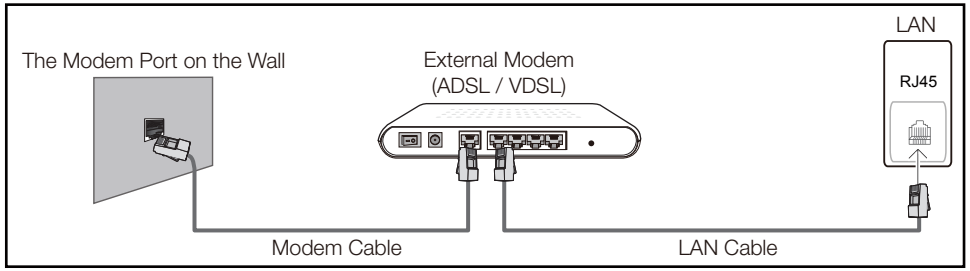

Network Settings
No network cable or Samsung Wireless LAN Adapter connected.
Please plug in a network cable or a Samsung Wireless LAN Adapter.
Start
Cancel
SAMSUNG

– The displayed image may differ depending on the model.

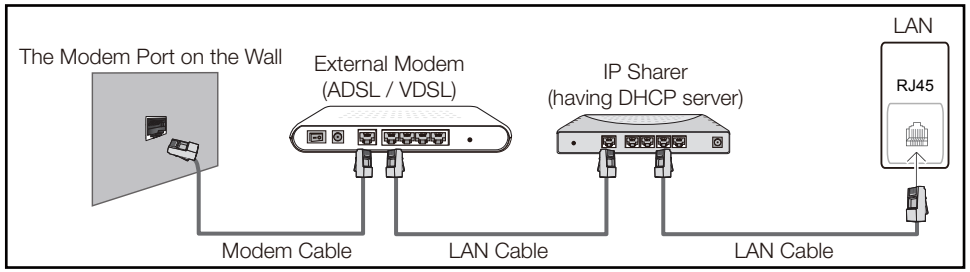
Connecting to a Wired Network

There are three ways to attach your product to your LAN using cable.

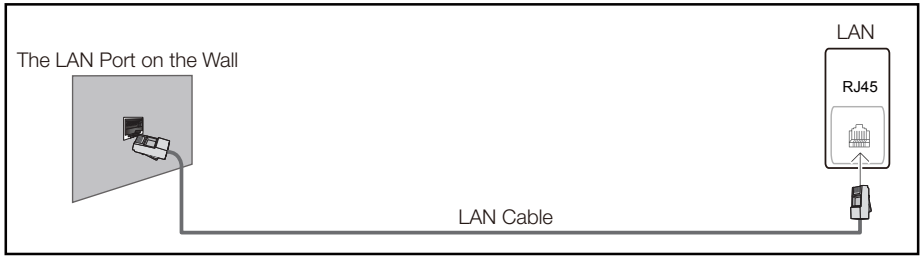
- You can attach your product to your LAN by connecting the LAN port on the back of your product to an external modem using a LAN cable.
  See the diagram below.



- You can attach your product to your LAN by connecting the LAN port on the back of your product to an IP Sharer which is connected to an external modem. Use LAN cable for the connection. See the diagram below.



- Depending on how your network is configured, you may be able to attach your product to your LAN by connecting the LAN port on the back of your product directly to a network wall outlet using a LAN cable.
  See the diagram below. Note that the wall outlet is attached to a modem or router elsewhere in your house.



If you have a Dynamic Network, you should use an ADSL modem or router that supports the Dynamic Host Configuration Protocol (DHCP). Modems and routers that support DHCP automatically provide the IP address, subnet mask, gateway, and DNS values your product needs to access the Internet so you do not have to enter them manually. Most home networks are Dynamic Networks.

Some networks require a Static IP address. If your network requires a Static IP address, you must enter the IP address, subnet mask, gateway, and DNS values manually on your product Cable Setup Screen when you set up the network connection. To get the IP address, subnet mask, gateway, and DNS values, contact your Internet Service Provider (ISP).

If you have a Windows computer, you can also get these values through your computer.

— You can use ADSL modems that support DHCP if your network requires a Static IP address.

— ADSL modems that support DHCP also let you use Static IP addresses.

Wired Network Settings

Set the network connection to use Internet services such as perform software upgrades.

Automatic Network Settings

Connect to the network using a LAN cable.

Make sure a LAN cable is connected first.

How to set up automatically

1 Go to the **Network Settings** screen. Select **Start**, press ↵, and then press ↵ again.

2 The network test screen appears and verifies the network connection.

When the connection has been verified, the "**Wired network and Internet connection completed.**" message appears.

— If the connection process fails, check the LAN port connection.

— If the automatic process cannot find the network connection values or if you want to set the connection manually, go to the next section, network setup.

Manual Network Settings

Offices may use static IP addresses.

If this is the case, ask the network administrator for the IP address, subnet mask, gateway and DNS server address. Enter these values manually.

Getting the Network Connection Values

To view the Network connection values on most Windows computers, follow these steps.

1 Right click the Network icon on the bottom right of the screen.

2 In the pop-up menu that appears, click Status.

3 On the dialog that appears, click the **Support** tab.

4 On the **Support** Tab, click the **Details** button. The Network connection values are displayed.

How to set up manually

1 Go to the **Network Settings** screen. Select **Start**, press ↵, and then press ↵ again.

2 The network test screen appears and the verification process starts. Press **Stop**. The verification process stops.

3 Select **IP Settings** on network connection screen. The **IP Settings** screen appears.

4 Select the field at the top, press ↵, and then set **IP Settings** to **Enter manually**. Repeat the entry process for each field in the **IP Address**.

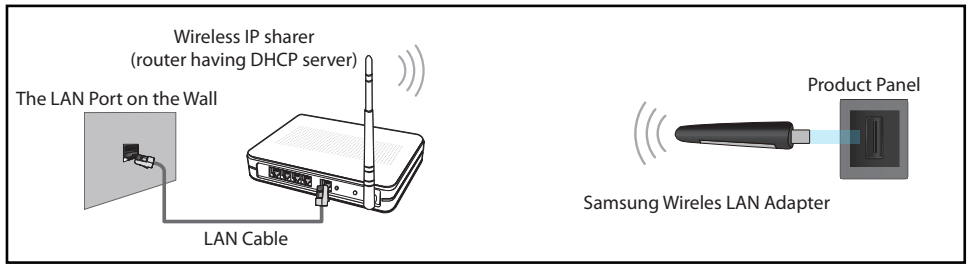
— Setting **IP Settings** to **Enter manually** automatically changes **DNS Setting** to **Enter manually**.

5 When done, select **OK** at the bottom of the page, and then press ↵. The network test screen appears and the verification process starts.

6 When the connection has been verified, the "**Wired network and Internet connection completed.**" message appears.

Connecting to a Wireless Network

To connect your product to your network wireless, you need a wireless router or modem and a Samsung Wireless LAN adapter (WIS10ABGN, WIS12ABGNX) , which you connect to your product back or side panel USB port. See the illustration below.



Samsung's Wireless LAN adapter is sold separately and is offered by selected retailers, Ecommerce sites, and Samsungparts.com. Samsung's Wireless LAN adapter supports the IEEE 802.11a/b/g and n communication protocols. Samsung recommends using IEEE 802.11n. When you play video over a network connection, the video may not play smoothly.

— You must use the "Samsung Wireless LAN adapter" (WIS10ABGN, WIS12ABGNX) to use a wireless network.
The Samsung Wireless LAN Adapter and the USB extension Cable are sold separately and are offered by select retailers, Ecommerce sites, and Samsungparts.com.

— Select a channel for the wireless IP sharer that is not currently being used. If the channel set for the wireless IP sharer is currently being used by another device nearby, this will result in interference and communication failure.

— Your product supports only the following wireless network security protocols.
If you select the Pure High-throughput (Greenfield) 802.11n mode and the Encryption type is set to WEP, TKIP or TKIP AES (WPS2Mixed) on your AP or wireless router, Samsung products will not support a connection in compliance with new Wi-Fi certification specifications.

— If your wireless router supports WPS (Wi-Fi Protected Setup), you can connect to the network via PBC (Push Button Configuration) or PIN (Personal Identification Number). WPS will automatically configure the SSID and WPA key in either mode.

— If your router, modem, or device is not certified, it may not connect to the product via the "Samsung Wireless LAN adapter".

— Ensure the product is turned on before you connect the "Samsung Wireless LAN adapter".

— Connection Methods: You can setup the wireless network connection in three ways.
Auto Setup (Using the Auto Network Search function), Manual Setup, **WPS(PBC)**

— The product may not recognize the "Samsung Wireless LAN adapter" if you connect it to the product with a USB hub or USB extension cable other than the cable supplied with the product.

Wireless Network Setting

Automatic Network Setup

Most wireless networks have an optional security system that requires devices that access the network to transmit an encrypted security code called an Access or **Security key**. The **Security key** is based on a Pass Phrase, typically a word or a series of letters and numbers of a specified length you were asked to enter when you set up security for your wireless network. If you use this method of setting up the network connection, and have a **Security key** for your wireless network, you will have to enter the Pass Phrase during the the automatic or manual setup process.

How to set up automatically

1 Go to the **Network Settings** screen. Select **Start**, press ↵.

2 The **Network** function searches for available wireless networks. When done, it displays a list of the available networks.

3 In the list of networks, press the ▲ or ▼ button to select a network, and then press the ↵ button twice.

— If the wireless router is set to Hidden (Invisible), you have to select **Add Network** and enter the correct **Network Name** and **Security key** to establish the connection.

4 If the **Enter security key.** screen appears, go to step 5. If you select a wireless router that does not have security, go to step 7.

5 If the router has security, enter the **Security key** (**Security key** or **PIN**).

6 When done, use the right arrow button to move the cursor to **Next**, and then press ↵. The network connection screen appears and the verification process starts.

— A connection with the router is established, but the Internet cannot be accessed.

7 When the connection has been verified, the "**Your wireless network and Internet connection are setup and ready to use.**" message appears.

Manual Network Setup

Offices may use static IP addresses.

If this is the case, ask the network administrator for the IP address, subnet mask, gateway and DNS server address. Enter these values manually.

Getting the Network Connection Values

To view the Network connection values on most Windows computers, follow these steps.

1 Right click the Network icon on the bottom right of the screen.

2 In the pop-up menu that appears, click Status.

3 On the dialog that appears, click the **Support** tab.

4 On the **Support** Tab, click the **Details** button. The Network connection values are displayed.

How to set up manually

1 Go to the **Network Settings** screen. Select **Start**, press ↵.

2 The **Network** function searches for available wireless networks. When done, it displays a list of the available networks.

3 In the list of networks, press the ▲ or ▼ button to select a network, and then press the ↵ button twice.

— If the wireless router is set to Hidden (Invisible), you have to select **Add Network** and enter the correct **Network Name** and **Security key** to establish the connection.

4 If the **Enter security key.** screen appears, go to step 5. If you select a wireless router that does not have security, go to step 7.

5 If the router has security, enter the **Security key** (**Security key** or **PIN**).

6 When done, use the right arrow button to move the cursor to **Next**, and then press ↵. The network connection screen appears and the verification process starts.

7 Select **Stop** while network connections are being attempted. This will stop the connection.

8 Select **IP Settings** on network connection screen. The **IP Settings** screen appears.

9 Select the field at the top, press ↵, and then set **IP Settings** to **Enter manually**. Repeat the entry process for each field in the **IP Address**.

— Setting **IP Settings** to **Enter manually** automatically changes **DNS Setting** to **Enter manually**.

10 When done, select **OK** at the bottom of the page, and then press ↵. The network test screen appears and the verification process starts.

11 When the connection has been verified, the "**Your wireless network and Internet connection are setup and ready to use.**" message appears.

WPS(PBC)

How to set up using WPS(PBC)

If your router has a **WPS(PBC)** button, follow these steps.

1 Go to **Network Settings** screen.

2 Select **WPS(PBC)**, press ↵, and then press ↵ again.

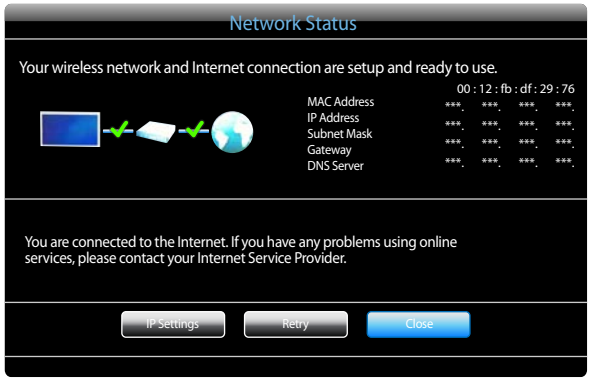
3 Press the **WPS(PBC)** button on your router within 2 minutes. Your product automatically acquires all the network setting values it needs and connects to your network.

4 The network connection screen appears, and network setup is done.

Network Status

MENU → **Network** → **Network Status** → **ENTER**

You can check the current network and Internet status.


Network Status
Your wireless network and Internet connection are setup and ready to use.
00 : 12 : fb : df : 29 : 76
MAC Address
IP Address
Subnet Mask
Gateway
DNS Server
You are connected to the Internet. If you have any problems using online services, please contact your Internet Service Provider.
IP Settings
Retry
Close

— The displayed image may differ depending on the model.

Wi-Fi Direct

MENU → **Network** → **Wi-Fi Direct** → **ENTER**

Set to connect the product to wireless mobile devices. Using this function, you can connect wireless mobile devices with your product directly without a router.

— To use this function, your mobile device should be supported by the **Wi-Fi Direct**.

To connect your mobile device with your product using Wi-Fi Direct, follow these steps:

1 Go to **Wi-Fi Direct** screen. The product starts to search devices.

2 Turn on the **Wi-Fi Direct** function on your device. Select the desired Wi-Fi device.

- PBC (Push Button Configuration): Press the **WPS(PBC)** button on your Wi-Fi device within 2 minutes. Your product automatically acquires all the network setting values it needs and connects to your network.
- **PIN**: Input the displayed **PIN** on your device.

— If you want to disconnect the device, select the connected Wi-Fi device, and then select **Disconnected**.

Soft AP

MENU → **Network** → **Soft AP** → **ENTER**

Using this function, you can connect the product on your mobile devices if your mobile devices do not support **Wi-Fi Direct**. Set the options for connection of Wi-Fi device.

- **Soft AP**
  Turns on or off the **Soft AP**. When **Soft AP** is set to **On**, your mobile devices can find the product name in Wi-Fi connection list.
- **Security key**
  Set the **Security key** manually using the remote control.
  - B **Show security key**: Shows the security key. Whether to show the security key is represented by a checkbox at the top.
  - A **Del.**: Deletes the entered security key one digit at a time.
  - C **Space**: Inserts a blank space between characters when entering the security key.
  - ↩ **Return**: Returns to the screen before entering the security key.
  - The **Security key** should consist of more than 8 digits.
  - Input the generated security key into the device you want to connect.
  - If network does not operate normally, check the security key again. An incorrect security key may cause a malfunction.

AllShare Settings

MENU → **Network** → **AllShare Settings** → **ENTER**

Shows a list of mobile phones or connected devices which have been set up to use the **AllShare Play** function with this product.

- **Allow** / **Deny**: Allows/Blocks the devices.
- **Delete from the list**: Deletes the devices from the list.

  — This function only deletes the name of the device from the list. If the deleted device is turned on or tries to connect to the product, it may appear on the list again.

Using the AllShare Play Function

An alarm window appears informing you that media contents (videos, photos, music) sent from a mobile phone will be displayed on your product. The contents are played automatically 3 seconds after the alarm window appears. If you press the **RETURN** or **EXIT** button when the alarm window appears, the media contents are not played.

— The first time a device accesses your product through the media function, a warning popup window appears. Press the ↵ button to select **Allow**. This permits the phone to access the product freely and use the **AllShare Play** function to play content.

— To turn off media contents transmissions from a mobile phone, set **Deny** in the **AllShare Settings**.

— Contents may not play on your product depending on their resolution and format.

— The ↵ and ◀ / ▶ buttons may not work depending on the type of media content.

— Using the mobile device, you can control the **AllShare Play**. For details, refer to each mobile's user's guide.

Device Name

MENU → **Network** → **Device Name** → **ENTER**

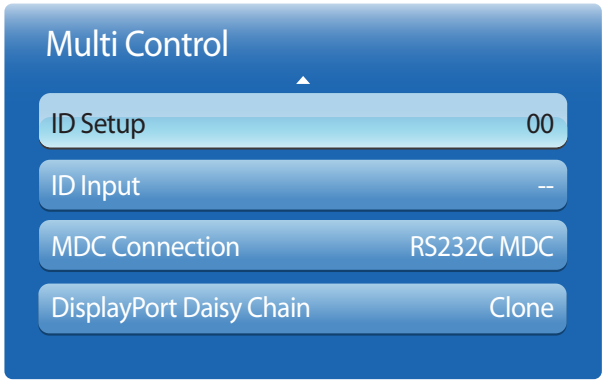
Select or enter a device name.

This name can be shown on network remote controls over the network.

Chapter 08
System

Multi Control

MENU → System → Multi Control → ENTER



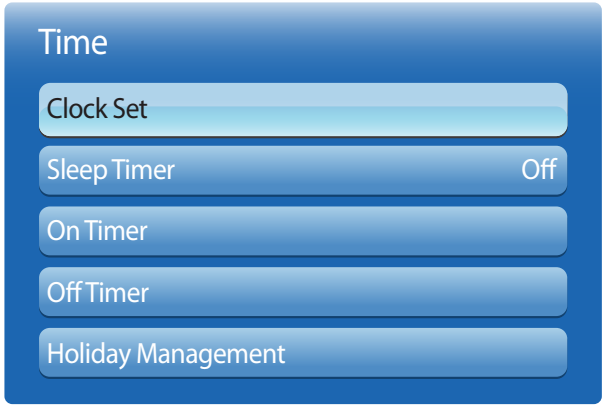
– The displayed image may differ depending on the model.

Configuring settings for Multi Control

- **ID Setup**
  Assign an ID to a set. (Range: 0~99)
  Press ▲ or ▼ to select a number, and press ↵.
- **ID Input**
  Enter the ID number of the product connected to the input cable for input signal reception.
  Enter the number you want using the number buttons on the remote control.
- **MDC Connection**
  Select a method to connect to MDC to receive the MDC signal.
  – **RS232C MDC**: Communicate with MDC via the RS232C-stereo cable.
  – **RJ45 MDC**: Communicate with MDC via the RJ45 cable.
- **DisplayPort Daisy Chain**
  To display the**DP IN** video input through the **DP OUT** output port, select a device connection method from Single Stream Transport (SST) and Multi Stream Transport (MST).
  Clone: In this Single Stream Transport (SST) output mode, the same screen output is displayed on two display devices connected.
  — If **Clone** is selected, the PC recognizes the two displays as a single monitor.
  — **Clone** mode is enabled if the input source is a digital input other than **DisplayPort**, such as **DVI**, **HDMI** or **MagicInfo**.
  Expand: In this Multi Stream Transport (MST) mode, a different screen output is displayed on two display devices connected.
  — If **Expand** is selected, the PC recognizes the two displays as separate monitors.
  — The mode functions only on a PC that supports DisplayPort 1.2 MST.
  — For Full HD resolution (1920x1080) displays, a maximum of four displays can be connected.

Time

MENU → System → Time → ENTER



– The displayed image may differ depending on the model.

You can configure **Clock Set** or **Sleep Timer**. You can also set the product to automatically turn on or off at a specified time using the **Timer** function.

Clock Set

Set the clock to use the various various timer features of the product.

- **Clock Set**

  Set the **Date** and **Time**.

  Select **Clock Set**. Select **Date** or **Time**, and then press .

  Use the number buttons to enter numbers or press the up and down arrow buttons. Use the left and right arrow buttons to move from one entry field to the next. Press when done.

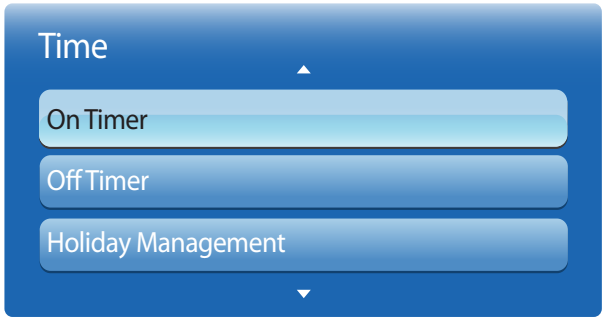
— You can set the **Date** and **Time** directly by pressing the number buttons on the remote control.

Sleep Timer

Automatically shuts off the product after a preset period of time.

(**Off** / **30 min.** / **60 min.** / **90 min.** / **120 min.** / **150 min.** / **180 min.**)

— Use the up and down arrows to select a period of time, and then press . To cancel **Sleep Timer**, select **Off**.



– The displayed image may differ depending on the model.

On Timer

Set **On Timer** so that your product turns on automatically at a time and on a day of your choosing.

The power is turned on with the specified volume or input source.

On Timer: Set the on timer by making a selection from one of the seven options. Ensure you set the current time first.

(**On Timer1** ~ **On Timer7**)

— You must set the clock before you can use **On Timer**.

- **Setup**: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**. If you select **Manual**, you can choose the days you want **On Timer** to turn on your product.
  — The check mark indicates days you've selected.
- **Time**: Set the hour and minute. Use the number buttons or the up and down arrow keys to enter numbers. Use the left and right arrow buttons to change entry fields.
- **Volume**: Set the desired volume level. Use the left and right arrow buttons to change the volume level.
- **Source**: Select the input source of your choice.
- **Music** / **Photo** (when the **Source** is set to **USB**): Select a folder in the USB device containing music or photo files you want played when the product turns on automatically.
  — This function is available only when a USB device is connected.

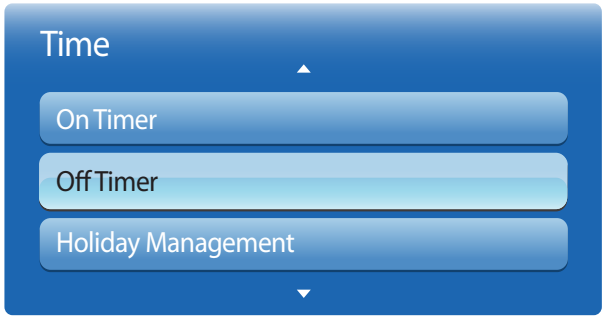
— If there is no music file on the USB device or you don't select a folder containing a music file, the Timer function does not operate correctly.

— If there is only one photo file in the USB, the Slide Show will not play.

— If a folder name is too long, the folder cannot be selected.

— Each USB you use is assigned its own folder. When using more than one of the same type of USB, make sure the folders assigned to each USB have different names.

— We recommend that you use a USB memory stick and a multi card reader when using **On Timer**. The **On Timer** function may not work with USB devices with a built-in battery, MP3 players, or PMPs made by some manufacturers because the product can take too long to recognize these devices.



– The displayed image may differ depending on the model.

Off Timer

Set the off timer (**Off Timer**) by making a selection from one of the seven options. (**Off Timer1** ~ **Off Timer7**)

— You must set the clock before you can use **Off Timer**.

- **Setup**: Select **Off**, **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**. If you select **Manual**, you can choose the days you want **Off Timer** to turn off your product.

  — The check mark indicates days you've selected.

- **Time**: Set the hour and minute. Use the number buttons or the up and down arrow keys to enter numbers. Use the left and right arrow buttons to change entry fields.

Holiday Management

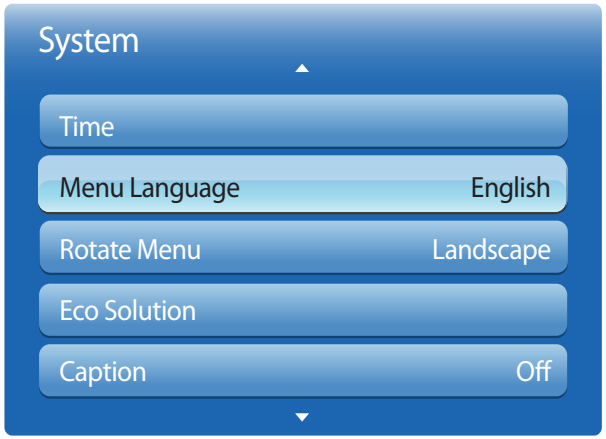
Timer will be disabled during a period specified as a holiday.

- **Add**: Specify the period you want to add as a holiday.
  Select the start and end dates of the holiday you want to add using the ▲/▼ buttons, and click the **Save** button.
  The period will be added to the list of holidays.
  - **Start**: Set the start date of the holiday.
  - **End**: Set the end date of the holiday.
  - **Delete**: Delete all items from the list of holidays.
    Select **Delete**. The message "**Delete all holidays?**" will appear.
    Select **Yes**. All holidays will be deleted.

- **Apply**: Set the **On Timer** and **Off Timer** to not activate on public holidays.
  - Press ↵ to select the **On Timer** and **Off Timer** settings you do not want to activate.
  - The selected **On Timer** and **Off Timer** will not activate.

Menu Language

MENU → System → Menu Language → ENTER



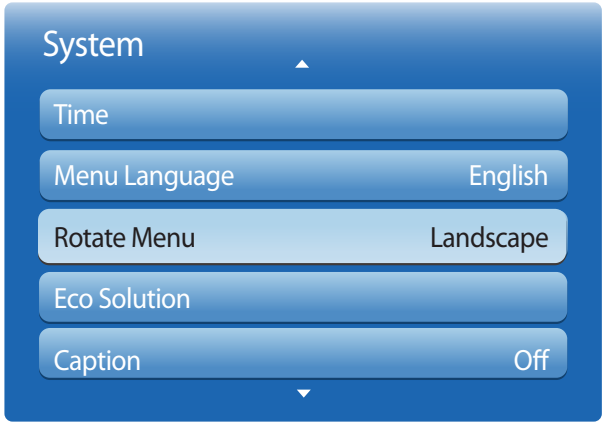
– The displayed image may differ depending on the model.

Set the menu language.

— A change to the language setting will only be applied to the onscreen menu display. It will not be applied to other functions on your PC.

Rotate Menu

MENU → System → Rotate Menu → ENTER



– The displayed image may differ depending on the model.

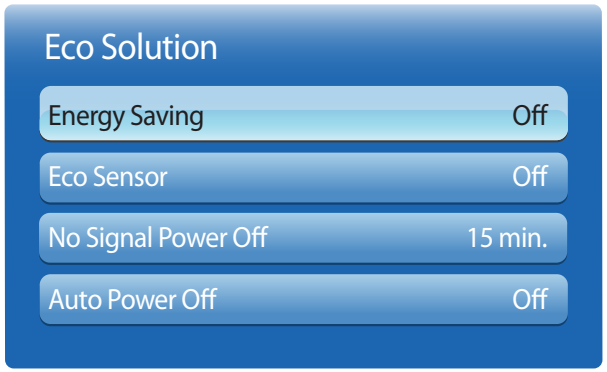
Configure the menu screen.

- **Landscape**: Display the menu in landscape mode (default).
- **Portrait**: Display the menu in portrait mode on the right side of the product screen.

  — Available in **PC**/**DVI**/**HDMI1**/**HDMI2**/**DisplayPort**/**MagicInfo** mode.

Eco Solution

MENU → System → Eco Solution → ENTER



– The displayed image may differ depending on the model.

Energy Saving

Reduce the power consumption by adjusting the screen brightness.

Selecting **Picture Off** switches off the screen. The volume is not disabled.

To switch the screen on, press any button other than the volume button.

- **Off** / **Low** / **Medium** / **High** / **Picture Off**

Eco Sensor

To enhance your power savings, the picture settings will automatically adapt to the light in the room.

- **Off** / **On**

— Adjusting the **Backlight** setting under **Picture** while **Eco Sensor** is on will disable the **Off**.

Min. Backlight

When **Eco Sensor** is **On**, you can manually adjust the minimum screen brightness. **Min. Backlight** is the darkest backlight mode. Make sure the **Min. Backlight** setting is lower than the **Backlight** setting.

— If **Eco Sensor** is **On**, the display brightness may change (become slightly darker or brighter) depending on the surrounding light intensity.

No Signal Power Off

Save power by turning the device off when no signal is received from any source.

- **Off** / **15 min.** / **30 min.** / **90 min.**

— Disabled when an attached PC is in power saving mode.

— The product will automatically power off at a specified time. The time can be changed as required.

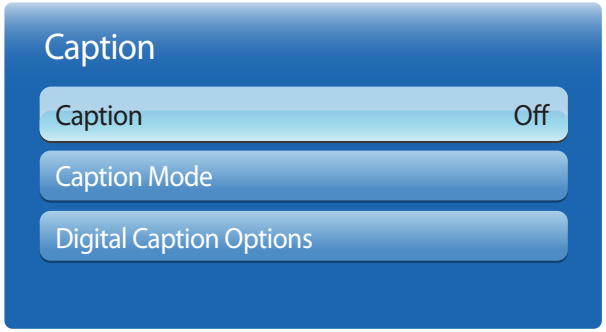
Auto Power Off

The product will automatically turn off if you don't press a button on the remote or touch a button on product front panel within 4 hours to prevent overheating.

- **Off** / **On**

Caption

MENU → System → Caption → ENTER



– The displayed image may differ depending on the model.

Caption

You can switch the caption function on or off.

If captions are not available, they will not be displayed on the screen.

- **Off** / **On**

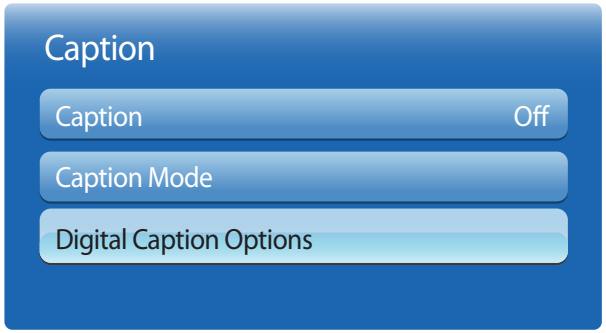
— The **Caption** feature does not work with devices connected to the product through the **HDMI1**, **HDMI2** or **PC** input jacks.

Caption Mode

You can select the desired caption mode.

— The availability of captions depends on the program being Broadcasted.

- **Default** / **CC1~CC4** / **Text1~Text4**: (Analog channels only) The analog **Caption** function operates in either analog product channel mode or when a signal is supplied from an external device to the product.
  (Depending on the broadcasting signal, the analog **Caption** function may or may not work with digital channels.)
- **Default** / **Service1~6**: (digital channels only) The Digital Captions function works with digital channels.
  — **Service1~6** may not be available in digital caption mode depending on the broadcast.



– The displayed image may differ depending on the model.

Digital Caption Options

(digital channels only)

Configure the subtitle settings such as size and color.

Adjusts the each option. When done, select **Close**.

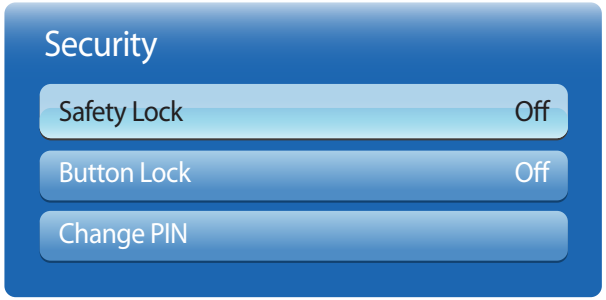
- **Size**: Options include **Default**, **Small**, **Standard** and **Large**. The default is **Standard**.
- **Foreground Color**: You can change the color of the letters. Options include **Default**, **White**, **Black**, **Red**, **Green**, **Blue**, **Yellow**, **Magenta** and **Cyan**. The default is **White**.
- **Background Color**: You can change the background color of the caption. Options include **Default**, **White**, **Black**, **Red**, **Green**, **Blue**, **Yellow**, **Magenta** and **Cyan**. The default is **Black**.
- **Foreground Opacity**: This adjusts the opacity of text. Options include **Default**, **Transparent**, **Translucent**, **Solid** and **Flashing**.
- **Background Opacity**: This adjusts the opacity of the caption background. Options include **Default**, **Transparent**, **Translucent**, **Solid** and **Flashing**.

— You cannot set the **Foreground Color** and **Background** to the same color.

— You cannot set both the **Foreground Opacity** and the **Background Opacity** to the same color.

Security

MENU → System → Security → ENTER



– The displayed image may differ depending on the model.

Every time you access the **Security** functions, the PIN screen will appear and the default PIN number is "0-0-0-0" (default password: 0 - 0 - 0 - 0).

Safety Lock

It sets safe lock function.

- **Off** / **On**

All the menus and buttons of the product and remote control, except for the **LOCK** button on the remote control, will be locked by the **Safety Lock** function.

To unlock the menus and buttons, press the **LOCK** button and then enter the password (default password: 0 - 0 - 0 - 0).

Button Lock

This menu can be used to lock the buttons on the product.

Only the remote control can control the product if **Button Lock** is set to **On**.

- **Off** / **On**

Change PIN

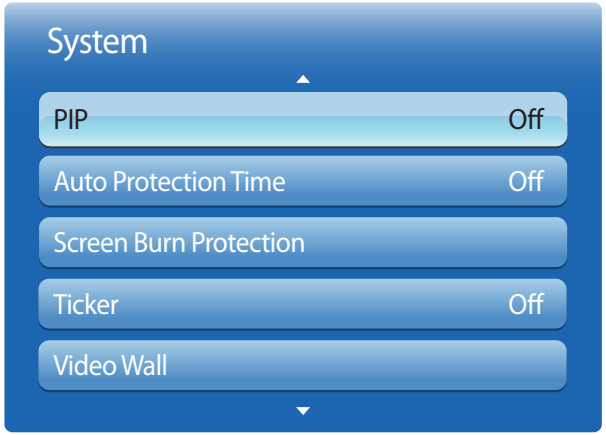
The **Change PIN** screen will appear.

Choose any 4 digits for your PIN and enter it in **Enter New PIN**. Reenter the same 4 digits in **Confirm New PIN**.

When the Confirm screen disappears, press the **Close** button. The product has memorized your new PIN.

PIP

MENU → System → PIP → ENTER



- The displayed image may differ depending on the model.
- For **PIP** sound, refer to the **Sound Select** instructions.
- If you turn the product off while watching in the **PIP** mode, **PIP** mode will remain after power Off/On.
- You may notice that the picture in the PIP screen becomes slightly unnatural when you use the main screen to view a game or karaoke.

PIP Settings

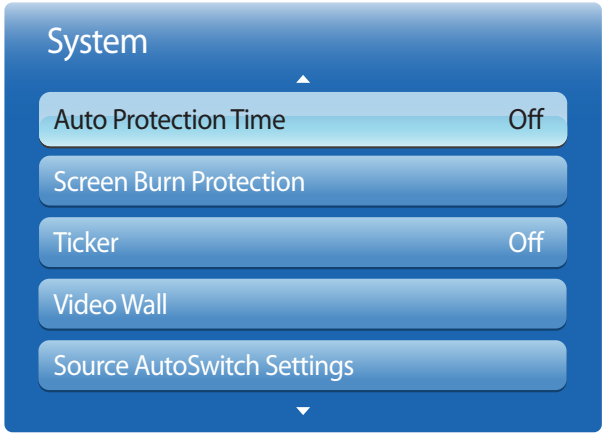
The picture from the external video source will be in the main screen and the picture from the product will be in the PIP sub-picture screen.

Main picture	Sub picture
MagicInfo Lite	PC, DVI, HDMI1, HDMI2, DisplayPort

- **PIP** (**Off** / **On**): Activate or deactivate the PIP function.
- **Source**: You can select a source of the sub picture.
- **Size** ( ): Select a size for the subpicture.
- **Position** ( ): Select a position for the sub-picture.
  - In ( ) mode, you cannot select **Position**.
- **Sound Select** (**Main** / **Sub**): You can choose to listen to the sound from the **Main** picture or the **Sub** picture.

Auto Protection Time

MENU → System → Auto Protection Time → ENTER



– The displayed image may differ depending on the model.

If the screen displays a still image for a certain period of time you define, the product activates the screen saver to prevent the formation of burnt in ghost images on the screen.

- **Off** / **2 hours** / **4 hours** / **8 hours** / **10 hours**

Screen Burn Protection

MENU → System → Screen Burn Protection → ENTER

– The displayed image may differ depending on the model.

To reduce the possibility of screen burn, this unit is equipped with **Pixel Shift** screen burn prevention technology.

Pixel Shift moves the picture slightly on the screen.

The **Pixel Shift Time** setting allows you to program the time between movements of the picture in minutes.

Pixel Shift

Minimize image retention by finely moving pixels horizontally or vertically.

- **Pixel Shift** (**Off** / **On**)
  — **Horizontal**, **Vertical** and **Time** are enabled only when **Pixel Shift** is set to **On**.
- **Horizontal**: Sets how many pixels the screen moves horizontally.
- **Vertical**: Sets how many pixels the screen moves vertically.
- **Time**: Set the time interval for performing the horizontal or vertical movement, respectively.

Available Pixel Shift Settings and Optimum Settings.

	Available Settings	Optimum Settings
Horizontal (pixels)	**0~4**	**4**
Vertical (pixels)	**0~4**	**4**
Time (minute)	**1 min.~4 min.**	**4 min.**

— The **Pixel Shift** value may differ depending on the product size (inches) and mode.

— Displaying a still image or a **4:3** output for an extended period of time may cause image retention. This is not a defect in the product.

— This function is not available in the **Screen Fit** mode.

– The displayed image may differ depending on the model.

Timer

You can set the timer for **Screen Burn Protection**.

The **Pixel Shift** feature stops automatically after a specified period of time.

Timer

- **Off**
- **Repeat**: Display the image retention-preventive pattern set in **Mode** at specified time intervals(Period).
- **Interval**: Display the image retention-preventive pattern set in **Mode** for a specified period of time (from **Start Time** to **End Time**).

  — The option is enabled only when **Clock Set** is configured.

  — **Mode**, **Period**, **Time**, **Start Time** and **End Time** are enabled only when **Timer** is set to **Repeat** or **Interval**.
- **Mode**: Select a screen protective pattern to display.
  - **Pixel**: Pixels on the screen alternate black continuously.
  - **Rolling Bar**: A vertical bar moves left to right.
  - **Fading Screen**: The entire screen becomes brighter, then darker.

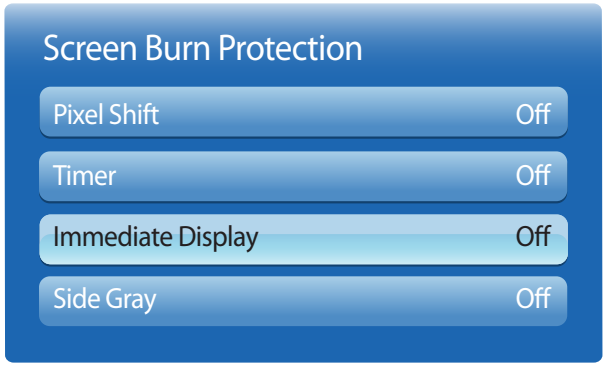
  — The **Rolling Bar** and **Fading Screen** patterns appear only once regardless of the specified repeat period or time.
- **Period**: Specify the time interval to activate the **Screen Burn Protection** function.

  — The option is enabled when **Repeat** is selected for **Timer**.
- **Time**: Specify the duration to keep the **Screen Burn Protection** function on.

  — The option is enabled when **Pixel** is selected for **Mode**.
- **Start Time**: Set the start time to activate the screen protection function.

  — The option is enabled when **Interval** is selected for **Timer**.
- **End Time**: Set the end time to deactivate the screen protection function.

  — The option is enabled when **Interval** is selected for **Timer**.



– The displayed image may differ depending on the model.

Immediate Display

Select the screen saver you want to display immediately.

- **Off** / **Pixel** / **Rolling Bar** / **Fading Screen**

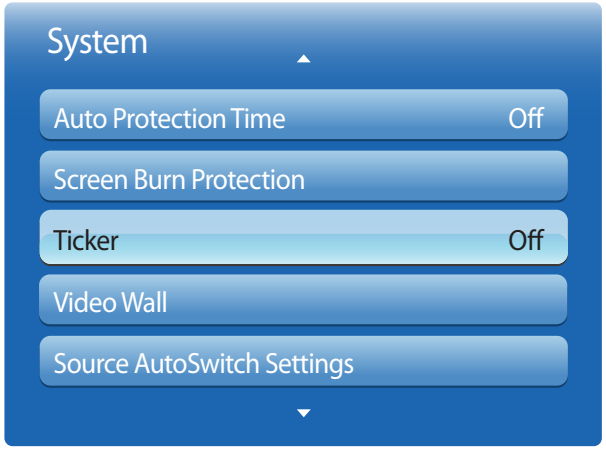
Side Gray

When the screen is set to 4:3 aspect ratio, adjust the brightness of white margins on sides to protect the screen.

- **Off** / **Light** / **Dark**

Ticker

MENU → System → Ticker → ENTER



– The displayed image may differ depending on the model.

Input text while a video or image is displayed and display the text on the screen.

- **Off** / **On**

  — **Message**, **Time**, **Position**, **Motion**, and **Font Options** are enabled only when **Ticker** is set to **On**.

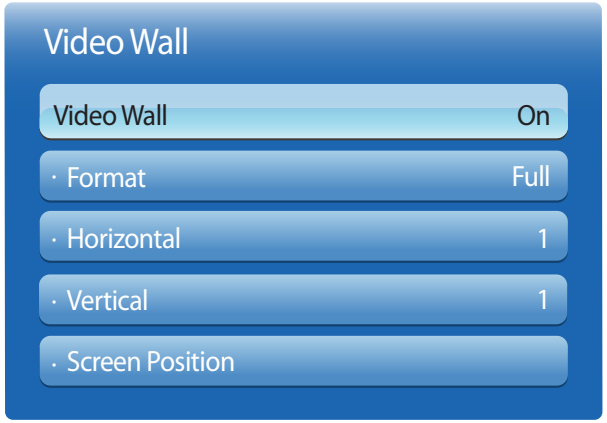
- **Message**: Enter a message to display on the screen.
- **Time**: Set the **Start Time** and **End Time** to display a **Message**.
- **Position**: Select an orientation to display a **Message** from **Horizontal** and **Vertical**.
  - **Horizontal** (**Left** / **Center** / **Right**)
  - **Vertical** (**Top** / **Middle** / **Bottom**)
- **Motion**: Specify the **Direction** and **Speed** to display a **Message**.
  - **Motion** (**Off** / **On**)
  - **Direction** (**Left** / **Right** / **Top** / **Bottom**)
  - **Speed** (**Slow** / **Normal** / **Fast**)

  — **Direction** and **Speed** are enabled only when **Motion** is set to **On**.

- **Font Options**: Specify the message **Size** and **Font Color**.

Video Wall

MENU → System → Video Wall → ENTER



- The displayed image may differ depending on the model.
- The **Video Wall** option is only enabled when **PIP** is set to **Off**.
- If more than four displays are connected horizontally and vertically, it is recommended that you use an input resolution of XGA (1024 x 768) level or higher to prevent a dark picture due to degradation in the contrast or color intensity.

Customize the layout of multiple displays that are connected to form a video wall.

In addition, display part of a whole picture or repeat the same picture on each of the connected multiple displays.

To display multiple images, refer to MDC Help or the **MagicInfo** user guide. Some models may not support the MagicInfo function.

Video Wall

You can activate or deactivate **Video Wall**.

To organize a video wall, select **On**.

Format

Select a format to display images on multiple displays.

- **Full**: Display images in full screen.
- **Natural**: Display images at the original resolution without enlarging or reducing.

— The **Format** option is only enabled when **Video Wall** is set to **On**.

Horizontal

This function automatically divides the screen according to the specified number of horizontal displays.

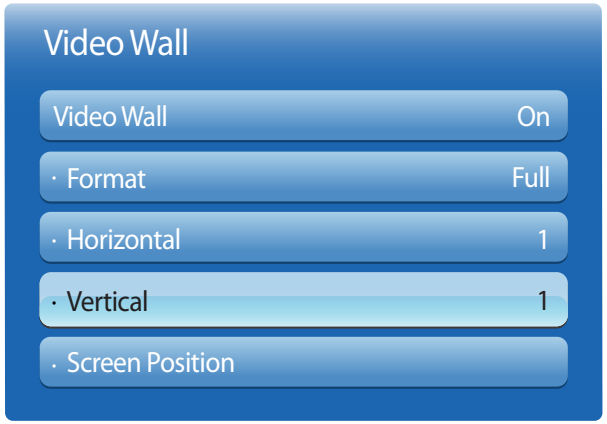
Enter the number of horizontally arranged displays.

The horizontal screen will automatically be divided according to the number entered.

A maximum of 15 displays can be assigned to the horizontal arrangement.

— The screen can be divided into a maximum of 100 screens (horizontal and vertical screens multiplied). For example, if the horizontal arrangement is set to 15, a maximum of 6 displays can be assigned to the vertical arrangement. Conversely, if the vertical arrangement is set to 15, a maximum of 6 displays can be assigned to the horizontal arrangement.

— The **Horizontal** option is only enabled when **Video Wall** is set to **On**.



– The displayed image may differ depending on the model.

Vertical

This function automatically divides the screen according to the specified number of vertical displays.

Enter the number of vertically arranged displays.

The vertical screen will automatically be divided according to the number entered.

A maximum of 15 displays can be assigned to the vertical arrangement.

— The screen can be divided into a maximum of 100 screens (horizontal and vertical screens multiplied). For example, if the horizontal arrangement is set to 15, a maximum of 6 displays can be assigned to the vertical arrangement. Conversely, if the vertical arrangement is set to 15, a maximum of 6 displays can be assigned to the horizontal arrangement.

— The **Vertical** option is only enabled when **Video Wall** is set to **On**.

Screen Position

You can customize the arrangement of split screens by moving displays identified with a number using the **Screen Position** function.

Select **Screen Position** to display the arrangement of displays (identified with a number) specified according to the **Horizontal** or **Vertical** settings. To customize the arrangement, move a number (display) using the direction buttons on the remote control and press ↵.

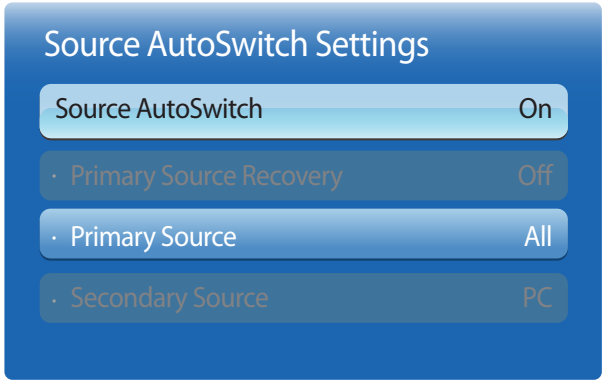
— A maximum of 100 displays can be arranged in **Screen Position**.

— The **Screen Position** option is only enabled when **Video Wall** is set to **On**.

— The **Screen Position** window is only displayed when **Horizontal** and **Vertical** are configured.

Source AutoSwitch Settings

MENU → System → Source AutoSwitch Settings → ENTER



– The displayed image may differ depending on the model.

Turning on the display with **Source AutoSwitch On**, and the previous video source selection is not active, the display will automatically search the different video input sources for active video.

Source AutoSwitch

When the **Source AutoSwitch** is **On**, the display video source will automatically be searched for active video.

The **Primary Source** selection will be activated, if the current video source is not recognized.

Secondary Source selection will become active, if no primary video source is available.

If both the primary and secondary input sources are not recognized, the display will perform two searches for an active source, each search checking the primary and then secondary source. If both searches fail, the display will return to the first video source and display a message indicating that there is no signal.

When the **Primary Source** selection is set to **All**, the display will search all the video source inputs twice in sequence looking for an active video source, returning back to the first video source in the sequence if no video is found.

Primary Source Recovery

Select whether to restore the selected primary input source when a primary input source is connected.

— The **Primary Source Recovery** function is disabled if **Primary Source** is set to **All**.

Primary Source

Specify **Primary Source** for the automatic input source.

Secondary Source

Specify **Secondary Source** for the automatic input source.

General

MENU → System → General → ENTER

– The displayed image may differ depending on the model.

Max. Power Saving

Turns off the product to reduce power consumption after the PC has been left idle for a specified period of time.

- **Off** / **On**

— Available only **PC**, **DVI**, **HDMI1**, **HDMI2**, **DisplayPort** mode.

Game Mode

When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting game mode.

- **Off** / **On**

— Precautions and limitations for **Game Mode**
To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.

— **Game Mode** is not available when the input source is set to **PC**, **DVI** or **DisplayPort**.

— If **Game Mode** is **On**
Picture Mode is set to **Standard** and **Sound Mode** is set to **Movie**.

BD Wise

Provides the optimal picture quality for Samsung DVD, Blu-ray and Home Theater products which support **BD Wise**. When **BD Wise** is turned **On**, the picture mode is automatically changed to the optimal resolution.

- **Off** / **On**

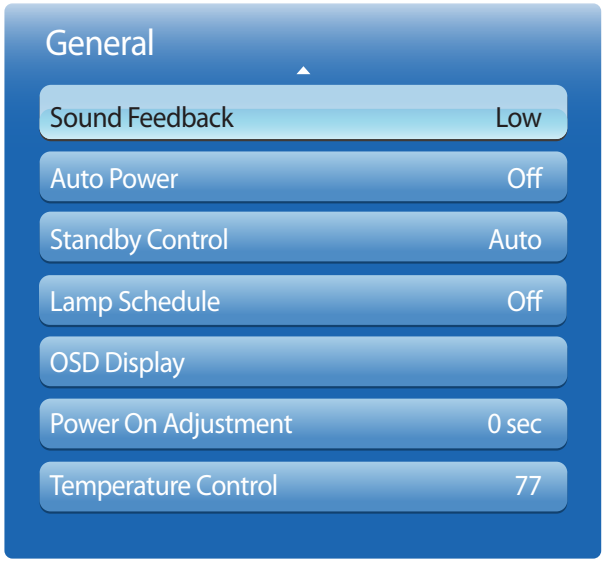
— Available when you connect Samsung products that support **BD Wise** through an HDMI cable to the product.

— The **BD Wise** function is enabled only when a source device with the **BD Wise** function is connected.

Menu Transparency

Adjust transparency of menu box.

- **High** / **Medium** / **Low**



– The displayed image may differ depending on the model.

Sound Feedback

Your product gives sound feedback when you use product.

Sound Feedback is enabled by default. Turn off **Sound Feedback** or adjust its volume.

This function is enabled by default. The volume can be adjusted or muted.

— **Off** / **Low** / **Medium** / **High**

Auto Power

Enabling this option will automatically power on the product if the power cable is connected.

- **Off** / **On**

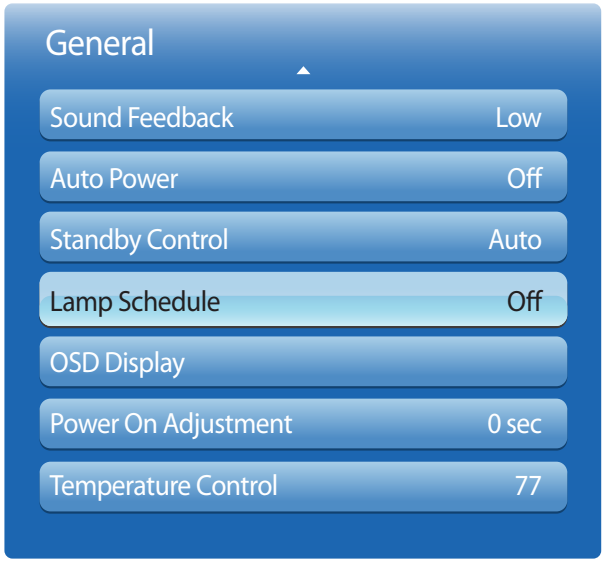
Standby Control

You can set the screen standby mode to be applied when an input signal is received.

- **Auto**
  Power-saving mode will activate if no input signals are detected even though a source device is connected to the display.
  The message **No Signal** will appear if no source device is connected.
- **On**
  Power-saving mode will activate if no input signals are detected.
- **Off**
  The message **No Signal** will appear if no input signals are detected.

— The **Standby Control** option is only enabled when **Source** is set to **PC**, **DVI**, **HDMI1**, **HDMI2** or **DisplayPort**.

— If **No Signal** is displayed although a source device is connected, check the cable connection.



– The displayed image may differ depending on the model.

Lamp Schedule

Enables the lamp value to be adjusted to a user-specified value at a specified time in MDC mode.

- **Off** / **On**

OSD Display

Displays or hides a menu item on the screen.

— **Source OSD** / **No Signal OSD** / **MDC OSD**

Power On Adjustment

You can set the warm-up time for the screen to turn on after the power button is pressed. (Range: 0 – 50 seconds)

— A warm-up time that is too short may damage the product due to overvoltage.

Temperature Control

This function detects the internal temperature of the product. You can specify the temperature range that is acceptable.

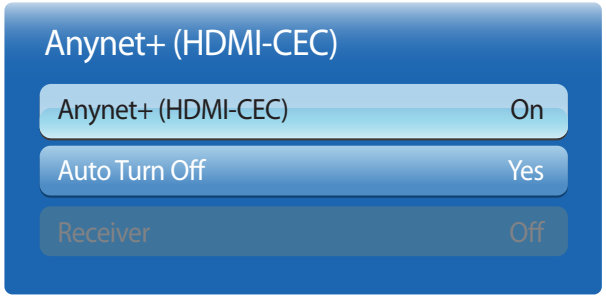
The default temperature is set to 77˚C.

The recommended operating temperature for this product is 75 to 80˚C (based on an ambient temperature of 40˚C).

— The screen will become darker if the current temperature exceeds the specified temperature limit. If the temperature continues to rise, the product will power off to prevent overheating.

Anynet+ (HDMI-CEC)

MENU → **System** → **Anynet+ (HDMI-CEC)** → **ENTER**



- The displayed image may differ depending on the model.
- The **Anynet+** functions do not operate with other manufacturers' products.
- For instructions explaining how to connect Anynet+ external devices, refer to the device's user manual.
- You can connect only one receiver (home theater).

Anynet+ (HDMI-CEC)

Anynet+ is a function that enables you to control all connected Samsung devices that support Anynet+ with your Samsung product remote. The Anynet+ system can be used only with Samsung devices that have the Anynet+ feature. To be sure your Samsung device has this feature, check if there is an Anynet+ logo on it.

— You can only control **Anynet+** devices using the product remote control, not the buttons on the product.

— The product remote control may not work under certain conditions. If this occurs, reselect the **Anynet+** device.

— **Anynet+** works when the AV device supporting **Anynet+** is in the standby or on status.

— While in **PIP** mode, **Anynet+** functions only when an AV device is connected as the primary display. It does not work if the AV device is connected as a secondary display.

— **Anynet+** supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.

Anynet+ Menu

The **Anynet+** menu changes depending on the type and status of the Anynet+ devices connected to the product.

Anynet+ Menu	Description
View PC	Changes **Anynet+** mode to **PC** mode.
Device List	Shows the Anynet+ device list.
(device_name) **MENU**	Shows the menu of the connected device menus. E.g. if a DVD player is connected, the disc menu of the DVD player will appear.
(device_name) **Tools**	Shows the tools menu of the connected device. E.g. if a DVD player is connected, the tools menu of the DVD player will appear. — Depending on the device, this menu may not be available.
(device_name) **Title Menu**	Shows the title menu of the disc in the connected device. E.g. If a DVD player is connected, the title menu of the movie in the DVD player will appear. — Depending on the device, this menu may not be available.

– The displayed image may differ depending on the model.

Auto Turn Off

Setting an **Anynet+** Device to turn **Off** automatically when the product is turned off.

- **No** / **Yes**

— If **Auto Turn Off** is set to **Yes**, running external devices will turn off at the same time as the product powers off.

— May not be enabled depending on the device.

Switching between Anynet+ Devices

1 Press the **TOOLS** button, select **Anynet+ (HDMI-CEC)**, and then press ↵.

2 Select **Device List**, and then press the ↵ button.

If you cannot find a device you want, select **Refresh** to refresh the list.

3 Select a device, and then press the ↵ button. You can switch to the selected device.

— The **Device List** menu appears only when you set **Anynet+ (HDMI-CEC)** to **On** in the **System** menu.

— Switching to the selected device may take up to 2 minutes. You cannot cancel the switching operation while switching is in progress.

— If you have selected an Anynet+ device by pressing the **SOURCE** button and then selecting its input source, you cannot use the Anynet+ function.

— Make sure to switch to an **Anynet+** device by using the **Device List**.

Troubleshooting for Anynet+

Problem	Possible Solution
Anynet+ does not work.	• Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. • You can connect only one receiver (home theater). • Check if the Anynet+ device power cord is properly connected. • Check the Anynet+ device's Video/Audio/HDMI cable connections. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the Anynet+setup menu. • Check whether the remote control is Anynet+ compatible. • Anynet+ doesn't work in certain situations. (initial setup) • If you have removed and then reconnected the HDMI cable, please make sure to search devices again or turn your product off and on again. • Check if the Anynet+ function of the Anynet device is set on.
I want to start Anynet+.	• Check if the Anynet+ device is properly connected to the product and check if the **Anynet+ (HDMI-CEC)** is set to **On** in the **Anynet+ Setup** menu. • Press the **TOOLS** button to display the **Anynet+** menu and select a menu you want.
I want to exit Anynet+.	• Select **View PC** in the **Anynet+** menu. • Press the **SOURCE** button on the product remote control and select a non- Anynet+ device.
The message "**Disconnecting Anynet+ device ...**" appears on the screen.	• You cannot use the remote control when you are configuring Anynet+ or switching to a view mode. • Use the remote control after the product has completed Anynet+ configuration or has finished switching to Anynet+.
The Anynet+ device does not play.	• You cannot use the play function when initial setup is in progress.

Problem	Possible Solution
The connected device is not displayed.	• Check whether or not the device supports Anynet+ functions. • Check whether or not the HDMI cable is properly connected. • Check whether **Anynet+ (HDMI-CEC)** is set to **On** in the **Anynet+ Setup** menu. • Search Anynet+ devices again. • Anynet+ requires an HDMI connection. Make sure the device is connected to your product with an HDMI cable. • Some HDMI cables may not support Anynet+ functions. • If the connection is terminated because there has been a power failure or the HDMI cable has been disconnected, please repeat the device scan.

DivX® Video On Demand

MENU → System → DivX® Video On Demand → ENTER

– The displayed image may differ depending on the model.

Shows the registration code authorized for the product.

If you connect to the DivX® web site and register using that code, you can download the VOD registration file.

For more information about DivX® VOD, visit "http://vod.divx.com".

Player Mode

MENU → System → Player Mode → ENTER

– The displayed image may differ depending on the model.

Select **Player Mode**.

Changing **Player Mode** will change the functions in **Contents Home**.

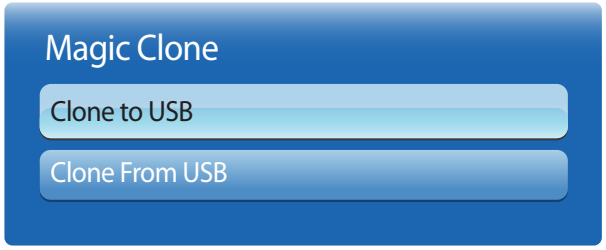
- **MagicInfo Lite** / **MagicInfo Premium S** / **MagicInfo Videowall S**

— Changing **Player Mode** will automatically reboot the product and apply changes.

— Changing **Player Mode** will reset all the previous settings configured in **Player Mode.**

Magic Clone

MENU → System → Magic Clone → ENTER



– The displayed image may differ depending on the model.

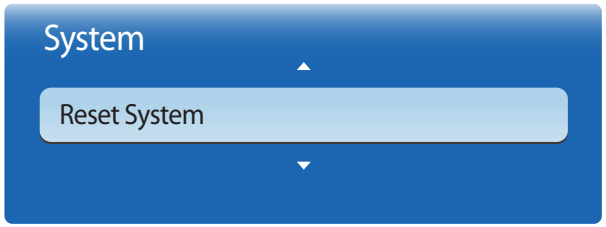
Export the product settings to a USB device or load the settings via a USB device.

This option is useful when assigning the same settings to several products.

- **Clone to USB**: Copy the product settings to a USB device.
- **Clone From USB**: Assign the settings saved in a USB device to the product.
  – After configuration is complete, the product is rebooted automatically.
  — The option may not work properly if the USB device contains a file other than a settings file.
  — Confirm that the USB device functions properly before running the option.
  — The option is available for products with the same **Model Code** and **Software Version**.
  Go to **Support** → **Software Update** and find the product **Model Code** and **Software Version**.

Reset System

MENU → System → Reset System → ENTER

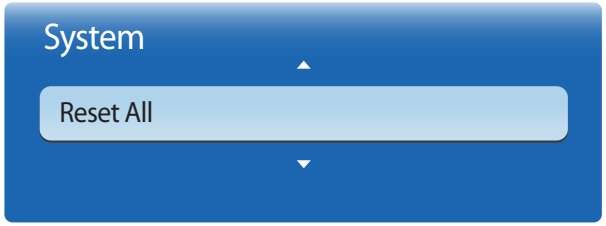


– The displayed image may differ depending on the model.

This option returns the current settings under system to the default factory settings.

Reset All

MENU → System → Reset All → ENTER

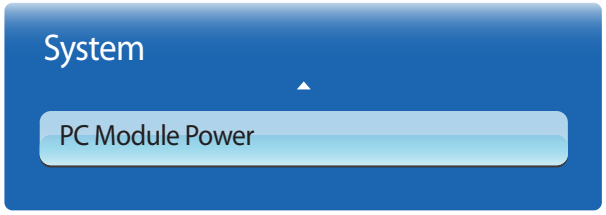


– The displayed image may differ depending on the model.

This option returns all the current settings for a display to the default factory settings.

PC Module Power

MENU → System → PC Module Power → ENTER



– The displayed image may differ depending on the model.

– PC module: Refers to network boxes or PIM.

The PC module can be turned on/off separately from the LFD.

Synced Power-On

To turn on the PC module without turning on the LFD, select **Off**.

- **Off** / **On**

Synced Power-Off

To turn off the LFD without turning off the PC module, select **Off**.

- **Off** / **On**

Chapter 09
Support

Software Update

MENU → **Support** → **Software Update** → **ENTER**

The **Software Update** menu lets you upgrade your product software to the latest version.

— Be careful not to turn off the power until the upgrade is complete. The product will turn off and on automatically after completing the software upgrade.

— When you upgrade software, all video and audio settings you have made will return to their default settings. We advise you to write down your settings so that you can easily reset them after the upgrade.

– **Current Version**: This is the software version already installed in the product.

By USB

To perform a software update from a USB device, contact the customer service center.

– Please be careful not to remove the USB drive until the upgrade is complete.

Contact Samsung

MENU → **Support** → **Contact Samsung** → **ENTER**

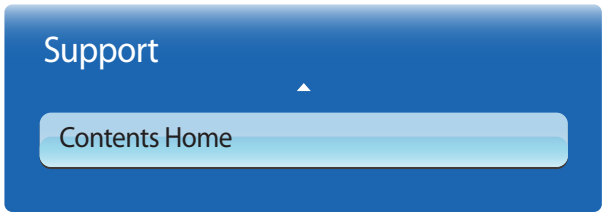
View this information when your product does not work properly or when you want to upgrade the software.

You can find information regarding our call Centers and how to download products and software.

— **Contact Samsung** and find the product **Model Code** and **Software Version**.

Contents Home

MENU → Support → Contents Home → ENTER



– The displayed image may differ depending on the model.

MagicInfo Lite

MENU → Support → Contents Home → MagicInfo Lite → ENTER

— MagicInfo Lite can also be accessed by pressing MagicInfo Lite/S on the remote control.

— To launch MagicInfo Lite, select MagicInfo Lite for the Player Mode on the System.

MagicInfo Lite Player allows you to play content (image, video, document files) at a desired time.

You can play content saved in Internal memory or USB memory. You can also play content via **MagicInfo Lite Server** after connecting to a network.

— Refer to page 166 for details about the MagicInfo Lite menu.

MagicInfo Premium S

MENU → Support → Contents Home → MagicInfo Premium S → ENTER

— MagicInfo Premium S can also be accessed by pressing MagicInfo Lite/S on the remote control.

— To launch MagicInfo Premium S, select MagicInfo Premium S for the Player Mode on the System.

— A license needs to be purchased to use MagicInfo Premium S.

MagicInfo Premium S Player can be used to edit and play content files including templates such as images, videos and documents.

Play content files and templates from USB memory or built-in memory. Alternatively, play content files and templates via **MagicInfo Premium Server** over a network.

— Refer to page 189 for details about the MagicInfo Premium S menu.

MagicInfo Videowall S

MENU → Support → Contents Home → MagicInfo Videowall S → ENTER

— MagicInfo Videowall S can also be accessed by pressing MagicInfo Lite/S on the remote control.

— To launch MagicInfo Videowall S, select MagicInfo Videowall S for the Player Mode on the System.

— A license needs to be purchased to use MagicInfo Videowall S.

MagicInfo Videowall S Player allows you to play content at a desired time. Content that can be played includes VideoWall content created in **MagicInfo Videowall Author** in addition to other image and video files.

Content can be played only through **Videowall Console** over a network.

— Refer to page 216 for details about the MagicInfo Videowall S menu.

AllShare Play

MENU → **Support** → **Contents Home** → **AllShare Play** → **ENTER**

Enjoy videos, photos, music files saved on a USB Mass Storage Class (MSC) device.

— Refer to page 150 for details about the **AllShare Play** menu.

Source

MENU → **Support** → **Contents Home** → **Source** → **ENTER**

You can display the screen of a source device connected to the product. Select a source from **Source** list to display the screen of the selected source.

– The input source can also be changed by using the **SOURCE** button on the remote control.

Edit Name

MENU → **Support** → **Contents Home** → **Source** → **TOOLS** → **Edit Name** → **ENTER**

Sometimes the screen will not display properly unless the name of a source device is specified in **Edit Name**.

In addition, it is best to rename the source device in **Edit Name** to obtain optimal picture quality.

— The list can include the following source devices. **Source** devices on the list differ depending on the selected source.
VCR / **DVD** / **Cable STB** / **Satellite STB** / **PVR STB** / **AV Receiver** / **Game** / **Camcorder** / **PC** / **DVI PC** / **DVI Devices** / **TV** / **IPTV** / **Blu-ray** / **HD DVD** / **DMA**

— Available settings in the **Picture** menu depend on the current source and settings made in **Edit Name**.

- When connecting a PC to the HDMI terminal, set **Edit Name** to **PC**. In other cases, set **Edit Name** to AV devices.
- When connecting a PC to the **HDMI IN 1** or **HDMI IN 2** port with HDMI cable, you should set the product to **PC** mode under **Edit Name**.
- When connecting a PC to the **HDMI IN 1** or **HDMI IN 2** port with HDMI to DVI cable, you should set the product to **DVI PC** mode under **Edit Name**.
- When connecting an AV devices to the **HDMI IN 1** or **HDMI IN 2** port with HDMI to DVI cable, you should set the product to **DVI Devices** mode under **Edit Name**.

Information

MENU → **Support** → **Contents Home** → **Source** → **TOOLS** → **Information** → **ENTER**

You can see detailed information about the selected external device.

Chapter 10
AllShare Play

Enjoy videos, photos, music files saved on a USB Mass Storage Class (MSC) device.

What is AllShare Play?

AllShare Play can also be accessed by pressing **CONTENET(HOME)** on the remote control.

Play photo, video or music files saved on a storage device. Wirelessly connect a smartphone to a PC using a wireless network.

Play various content using one of the following methods in **AllShare Play**:

- Using internal memory and a USB device: Play video, photo and music files from a USB device. Copy the files to the internal memory.
- Connecting to a PC over a network: Play photo, video and music files saved on a PC through a network connection.

Read the following before using AllShare Play with a USB device

Caution

- Before connecting a USB device to the product, back up files to ensure your data is not damaged or lost.
  Samsung Electronics is not liable for any damage or loss of data.
- Do not remove a USB device while it is loading.
- If a USB device is connected using a USB extension cable, the USB device may not be recognized or files saved on the device may not be able to be read.
- If the product does not recognize a connected USB device, the files on the USB device may be corrupted or may not be able to be played.
  If this occurs, connect the USB device to the PC to format the device, then make sure the device is connected properly.
- USB HDD greater than 2TB is not supported.

Compatible devices with AllShare Play

- Some types of USB devices, digital cameras and audio devices may not be compatible with the product.
- **AllShare Play** is only compatible with USB MSC devices.
- MSC device refers to a Mass Storage Class Bulk-Only Transport device.
  Examples of MSC devices include Thumb drives, Flash card readers and USB HDDs. (USB hubs are not supported.)
  These MSC devices must be connected directly to a USB port on the product.
- If more than one Picture Transfer Protocol (PTP) device is connected, only one will work at a time.
- If multiple MSC devices are connected, some devices may not be recognized. USB devices that require high power (higher than 500mA or 5V) may not be supported.
- If an overheating warning message appears when a USB device is connected or used, the USB device may not be recognized or function properly.
- The screensaver activates if the product is left idle for a period of time specified in **Auto Protection Time**.
- Power-saving mode on some external hard disk drives may automatically deactivate after connecting to the product.

File system and formats

- **AllShare Play** may not function properly with unlicensed multimedia files.
- Media Transfer Protocol (MTP) is not supported.
- Supported file systems include FAT16, FAT32 and NTFS (read only).
- **AllShare Play** supports the sequential JPEG format.
  It does not support the progressive JPEG format.
- Images with a higher resolution take longer to be displayed on the screen.
- The maximum JPEG resolution supported is 15360x8640 pixels.
- If a file is incompatible or corrupted, a message **Not Supported File Format.** appears.
- When sorting files in folder view mode, a maximum of 1000 files can be displayed in each folder.
- If a USB device contains 8000 files and folders or more, some files and folders may not open.
- DRM MP3 files downloaded from websites that charge a fee cannot be played.
  Digital Rights Management (DRM) refers to a system for protecting the copyrights of data circulated via the Internet or other digital media by enabling secure distribution and/or disabling illegal distribution of the data.

Using a USB device

Connecting a USB device

It is recommended to use a USB HDD that has a power adapter.

1 Turn on your product.

2 Connect a USB device containing photo, music and/or movie files to the USB port on the back or side panel of the product.

3 A message **New device connected.** appears when the USB device is connected properly. Select type of content to play from **Videos**, **Photos**, and **Music**.

— If only one USB device is connected, files saved on the USB device are displayed automatically.

— To view content saved on a USB device, connect the USB device to a USB port on the product.

Removing a USB device

Removing a USB device from Source

It is recommended to remove a USB device using the **Safely Remove USB** function.

1 Press **SOURCE** on the remote control. Alternatively, go to **Source** using the OSD menu.

MENU → **Support** → **Contents Home** → **Source** → **ENTER**

2 Select a USB device and press **TOOLS** on the remote control. **Tools** option appears.

3 Select **Safely Remove USB** and wait until the USB device is disconnected. The USB device is disconnected.

Deleting AllShare Play from the screen

1 Go to the **AllShare Play** page.

MENU → **Support** → **Contents Home** → **AllShare Play** → **ENTER**

2 Select all options except **My List** and press on the remote control.

3 Select a USB device and press **TOOLS** on the remote control. **Tools** option appears.

4 Select **Safely Remove USB** and wait until the USB device is disconnected. The USB device is disconnected.

Connecting to a PC over a network

Play photo, video and music files saved on a PC through a network connection in **AllShare Play** mode.

- For details on how to configure a network, refer to the section **Network Settings**.
- To view content saved on the PC, connect the product and PC to the same wireless router and visit http://www.samsung.com to download the AllShare PC software.
- Ensure the product and PC are connected to the same network subnet.
  All IP addresses are made up of four parts separated by dots.
  (E.g. IP address 111.222.333.444) The product should have the same IP address as the PC, except for the fourth part of the address, if they are connected to the same subnet. (E.g. 111.222.333.***)

When connected to a PC over a network, **AllShare Play** does not support the following features.

- **Background Music On** and **Background Music Setting** features
- Feature that sorts files in the **Videos**, **Photos** or **Music** folder according to the default setting
  ◀◀ or ▶▶ feature during video playback
- DivX® DRM is not supported.
- Make sure you set the Windows firewall program to permit the AllShare PC software.
- When using **AllShare Play** mode through a network connection, available functions may vary depending on the server as follows:
  - Available sorting modes may vary.
  - The **Scene Search** function may not be supported.
  - The resume function may not be available for multiple users.
    (The function only remembers the point where the most recent user stopped playing a video.)
  - The search function may not work depending on the content information.
- You may experience file stuttering while playing video content over a network connection.

Using the AllShare Play features

If you connect the product and a source device such as a cell phone or PC to the same network, you can play media content saved on the device such as videos, photos and music.

Visit http://www.samsung.com or contact the Samsung Electronics Customer Center for more information.

Additional software may need to be installed on your mobile device.

Refer to the mobile device user manual for details.

— Connect your Samsung display product to a network through **AllShare Play** and use the special features provided by Samsung as follows:

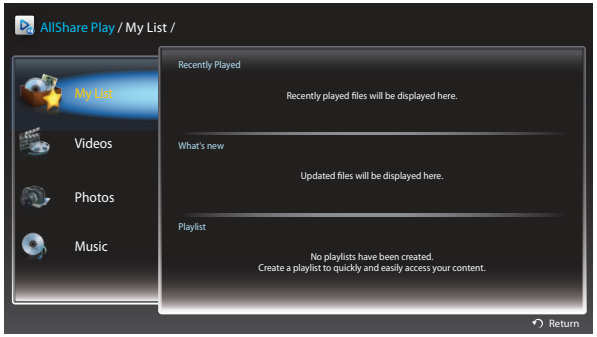
- Playback of various video formats (DivX, MP4, 3GPP, AVI, ASF, MKV, etc.)
- Video thumbnail feature
- Bookmark feature (to resume video playback)
- Auto-chaptering (scene search)
- Digital Content Management
- Compatibility with various subtitle formats (SRT, SMI, SUB, TXT, TTXT)
- Search with file names
- And many others

— A compatibility issue may occur if a video file is played when a server not provided by Samsung Electronics is connected.

— To use **AllShare Play**, go to http:// www.samsung.com and download the AllShare software.

Using the Basic AllShare Play Features

MENU → Support → Contents Home → AllShare Play → ENTER



The displayed image may differ depending on the model.

Sorting the file lists

To sort files, press D on the remote control to specify the sorting criteria.

Sort Criteria	Operation	Videos	Photos	Music
Folder view	Displays the whole folder. You can view the file name and thumbnail by selecting the folder.	✓	✓	✓
Title	Sorts and displays the file title in Symbol/Number/ Alphabet/Special order.	✓	✓	✓
Latest Date	Sorts and shows files by the latest date.	✓	✓	
Earliest Date	Sorts and shows files by the earliest date.	✓	✓	
Monthly	Sorts and shows photo files by month.		✓	
Artist	Sorts the music file by artist in alphabetical order.			✓
Album	Sorts the music file by album in alphabetical order.			✓
Genre	Sorts music files by the Genre.			✓

Playing Selected Files

1 Select files from the list of **Videos**, **Photos**, or **Music** files.

2 Press **TOOLS** on the remote control and select **Selection Play**.

— The option does not appear if a folder is highlighted by the cursor.

3 Select files and press **Play**.

— ✓ appears for selected files.
— To select all the files in the current folder, press **Select All**.
— To deselect all the files, press **Deselect All**.

Copying Files

1 Select files from the list of **Videos**, **Photos**, or **Music** files.

2 Select a storage device.

- **Internal Memory**: Copy files from **Internal Memory** to a **USB Devices** memory device.
- **USB Devices**: Copy files from a **USB Devices** memory device to **Internal Memory**.

3 Press **TOOLS** on the remote control and select **Send**.

The option does not appear if a folder is highlighted by the cursor.

4 Select files and press **Send**.

— ✓ appears for selected files.
— To select all the files in the current folder, press **Select All**.
— To deselect all the files, press **Deselect All**.

Creating a Playlist

1 Select files from the list of **Videos**, **Photos**, or **Music** files.

2 Press **TOOLS** on the remote control and select **Add to Playlist**.

— The option does not appear if a folder is highlighted by the cursor.

3 Select files and press **Add**.

The **Add to Playlist** page appears.

— ✓ appears for selected files.
— To select all the files in the current folder, press **Select All**.
— To deselect all the files, press **Deselect All**.

4 Select **Create New**. The **Create a new playlist.**. page appears.

5 Enter a playlist name using the remote control and select **Done**.

6 A playlist is created.

To play the created playlist, select **Play**.
To return to the list of files, select **OK**.

7 A created **Playlist** is displayed in **My List**.

My List

MENU → **Support** → **Contents Home** → **AllShare Play** → **My List** → **ENTER**

Access desired content more conveniently and quickly.

To play files, select files or a **Playlist** and press .

- **Recently Played**: Display video, photo or music files that were recently played. This mode is suitable when playing files again that were played before.
- **What's New**: Display new video, photo or music files that were uploaded to a PC or USB device. This mode is suitable when playing new files that were recently uploaded.
- **Playlist**: Display **Playlist** files saved on a PC or USB device. To play a **Playlist**, select the desired **Playlist**.

My List options

Option Name	Operations	Recently Played	What's New	Playlist
Play	Play a selected file or **Playlist**.	✓	✓	✓
Remove	Delete a selected file.	✓		
Delete	Delete a selected **Playlist**.			✓
Edit Playlist	Edit a selected **Playlist**.			✓
Information	View information about a selected file or **Playlist**.	✓	✓	✓

Videos

MENU → Support → Contents Home → AllShare Play → Videos → ENTER

Playing a Video

1 Select the internal memory or a USB device. Select files from the list of files.

2 Press the button or (Play) button.

- The file name appears on the top with its playing time.
- If video time information is unknown, the playing time and progress bar are not displayed.
- During video playback, you can search using the ◀ and ▶ buttons.
- You can use the (REW), (FF), (Pause), (Stop), and (Play) buttons on the bottom of your remote during playback. (3 / 2 / 1 / 1 / 2 / 3)
- Press the **RETURN** button to exit the movie

Using the Play Continuously Function (Resume Play)

If you exit a movie when it is playing, you can play the movie later from the point where you stopped it.

1 Select a file from the list of files.

2 Press the (Play) or button.

3 The Movie will begin to play from where you stopped it.

— Resume is only available when you resume playing a movie you had stopped.

— Press the button for pause.

– The Resume function does not support multiple users. (It will only memorize the point where the most recent user stopped playing.)

Photos

MENU → Support → Contents Home → AllShare Play → Photos → ENTER

Viewing a Photo (or Slide Show)

1 Select the internal memory or a USB device. Select a file from the list of files.

2 Press the button.

- To view files manually, one at a time, press the left or right arrow buttons.
- To start the slide show, press the (Play) button when the file you selected is displayed.
- During the slide show, all files in the file list are displayed in order, starting from the file you selected.
  - If you select the wrong background music, you cannot change the music until the BGM (**Background Music**) has finished loading.
  - During a slide show, press the **TOOLS** button to access additional functions such as **Go to Photos List**, **Stop Slide Show**, **Slide Show Speed**, **Slide Show Effect**, **Background Music On** / **Background Music Off**, **Background Music Setting**, **Picture Mode**, **Sound Mode**, **Zoom**, **Rotate** and **Information**.
  - You can use the (Pause), (Stop), and (Play) buttons on the bottom of your remote during a slide show.
  - When you press the (Stop) or **RETURN** button, the slide show stops and the main photo screen re-appears.

Music

MENU → Support → Contents Home → AllShare Play → Music → ENTER

Playing Music

1 Select the internal memory or a USB device. Select files from the list of files.

2 Press the button or (Play) button.

- When the music is playing, you can search using the (REW) and (FF) button.

— If the sound is abnormal when you play MP3 files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)

Videos / Photos / Music Play Option menu

- Pressing the **INFO** button while a device name is selected will display information about the selected device.
- Pressing the **INFO** button while a file is selected will display information about the selected file.

When playing video or photo files, you can press the **TOOLS** button to display an Options menu.

Option Name	Operations	Videos	Photos	Music
View	Sort music files grouped by **Folder view**, **Title**, **Artist**, **Album** or **Genre**.			✓
Selection Play	Select and play files from a list of music files.			✓
Go to Videos List	Return to the list of video files.	✓		
Go to Photos List	Return to the list of photo files.		✓	
Go to the playlist	Go to **My List**.			✓
Play from the Beginning	Play again the currently playing video from the beginning.	✓		
Scene Search	You can use the **Scene Search** function during playback to view or start a movie from the scene of your choice.	✓		
Title Search	You can move directly to another Title.	✓		
Time Search	You can search the movie using ◀ and ▶ buttons at intervals of 1 minute.	✓		
Repeat Mode	You can play movie and music files repeatedly.	✓		
Picture Size	You can adjust the picture size to your preference.	✓		
Picture Mode	You can change the **Picture Mode**.	✓	✓	

Option Name	Operations	Videos	Photos	Music
Sound Mode	You can change the **Sound Mode**.	✓	✓	
Audio Language	You can enjoy video in one of supported languages. The function is enabled only when you play stream-type files which support multiple audio formats.	✓		
Subtitle	You can view a subtitle. You can select a specific language if the subtitle file contains multiple languages.	✓		
Subtitle Settings	Displays the **Subtitle Settings**. You can set up a subtitle option.	✓		
Start Slide Show / **Stop Slide Show**	You can start or stop a slide show. Alternatively, use the ▶ or ⏸ button on the remote.		✓	
Slide Show Speed	You can select the slide show speed during the slide show. Alternatively, use the ◀◀ or ▶▶ button on the remote.		✓	
Slide Show Effect	You can set various slide show effects.		✓	
Background Music On / **Background Music Off**	You can start or stop background music.		✓	
Background Music Setting	You can set and select background music when watching a photo file or slide show.		✓	
Zoom	You can zoom into images in full screen mode.		✓	
Rotate	You can rotate images.		✓	
Information	View file information.	✓	✓	✓

Supported Subtitle and AllShare Play file formats

Subtitle

External	Internal
• MPEG-4 timed text (.ttxt) • SAMI (.smi) • SubRip (.srt) • SubViewer (.sub) • Micro DVD (.sub or .txt) • SubStation Alpha (.ssa) • Advanced SubStation Alpha (.ass) • Powerdivx (.psb)	• Xsub Container: AVI • SubStation Alpha Container: MKV • Advanced SubStation Alpha Container: MKV • SubRip Container: MKV • MPEG-4 timed text Container: MP4

Supported image resolutions

File Extension	Type	Resolution
*.jpg, *.jpeg	JPEG	15360 x 8640
*.png	PNG	1920 x 1080
*.bmp	BMP	1920 x 1080
*.mpo	MPO	15360 x 8640

Supported music file formats

File Extension	Type	Codec	Comments
*.mp3	MPEG	MPEG1 Audio Layer 3	
*.m4a, *.mpa, *.aac, *.3ga	MPEG4	AAC	
*.flac	FLAC	FLAC	The Seek (jump) function is not supported. Supports up to 2 channel

Supported Video Formats

- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Sound or video may not work if the contents have a standard bitrate/frame rate above the compatible Frame/sec listed in the table above.
- If the Index Table is in error, the Seek (Jump) function is not supported.
- You may experience file stuttering while playing a video through a network connection.
- The menu may take longer to appear if the video's bit rate exceeds 10Mbps.
- Some USB/digital camera devices may not be compatible with the player.

Video Decoder	Audio Decoder
Supports up to H.264, Level 4.1 H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported. For all Video codecs except MVC, VP8, VP6: • Below 1280 x 720: 60 frame max • Above 1280 x 720: 30 frame max GMC 2 over is not supported. Supports only BD MVC Spec.	Supports up to WMA 10 Pro 5.1 channel. WMA lossless audio is not supported. QCELP, AMR NB/WB are not supported. If Vorbis is only in Webm container, supports up to 2 channel.

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
***.avi** ***.mkv** ***.asf** ***.wmv** ***.mp4** ***.mov** ***.3gp** ***.vro** ***.mpg** ***.mpeg** ***.ts** ***.tp** ***.trp** ***.mov** ***.flv** ***.vob** ***.svi** ***.m2ts** ***.mts** ***.divx**	AVI MKV ASF MP4 3GP VRO VOB PS TS	DIVX 3.11 / 4.x / 5.x / 6.x	1920 x 1080	6~30	30	**AC3** **LPCM** **ADMPCM** **(IMA, MS)** **AAC** **HE-AAC** **WMA** **DD+** **MPEG(MP3)** **DTS Core** **G.711(ALaw,µ-Law)**
		MPEG4 SP / ASP				
		H.264 BP / MP / HP				
		Motion JPEG				
		Window Media Video v9				
		MPEG2				
		MPEG1				
		VP6	640 x 480		4	
		MVC	1920 x 1080	24 / 25 / 30	40	
***.webm**	WebM	VP8		6 ~ 30	8	**Vorbis**

Chapter 11
MagicInfo Lite

– To launch **MagicInfo Lite**, select **MagicInfo Lite** for the **Player Mode** on the **System**.

File Formats Compatible with MagicInfo Lite Player

Read before using MagicInfo Lite Player

- Supported file systems include FAT32 and NTFS.
- A file with a vertical and horizontal resolution larger than the maximum resolution cannot be played. Check the vertical and horizontal resolution of the file.
- Check the supported video and audio Codec types and Versions.
- Check the supported file versions.
  - Flash version up to 10.1 is supported
  - PowerPoint version up to 97 – 2007 is supported
- Only the last USB device that was connected is recognized.

Contents

File Extension	Container	Video Codec	Resolution	Frame rate (fps)	Bit rate (Mbps)	Audio Codec
***.avi** ***.mkv** ***.asf** ***.wmv** ***.mp4** ***.mov** ***.3gp** ***.vro** ***.mpg** ***.mpeg** ***.ts** ***.tp** ***.trp** ***.flv** ***.vob** ***.svi** ***.m2ts** ***.mts** ***.divx**	AVI MKV ASF MP4 3GP VRO VOB PS TS	DIVX 3.11 / 4.x / 5.x / 6.x	1920 x 1080	6~30	30	**AC3** **LPCM** **AAC** **HE-AAC** **WMA** **DD+** **MPEG(MP3)** **DTS Core** **G.711(ALaw,µ-Law)**
		MPEG4 SP / ASP				
		H.264 BP / MP / HP				
		Motion JPEG				
		Window Media Video v9				
		MPEG2				
		MPEG1				
		VP6	640 x 480		4	

Video	Audio	Image
• 3D video is not supported. • Content with a resolution larger than the resolution specified in the table above is not supported. • Video content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy video during playback. • Video content will not play, or not play correctly, if there is an error in the content or the container. • Some USB/digital camera devices may not be compatible with the player. • Supports up to H.264, Level 4.1 • H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported. • For all Video codecs except MVC, VP8, VP6: – Below 1280 x 720: 60 frame max – Above 1280 x 720: 30 frame max • GMC 2 or higher is not supported. • Supports only BD MVC Spec. • Some codecs may not be supported in portrait playback mode.	• Audio content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy audio during playback. • Video content will not play, or not play correctly, if there is an error in the content or the container. • Some USB/digital camera devices may not be compatible with the player. • Supports up to WMA 10 Pro 5.1 channel. WMA lossless audio is not supported. • QCELP, AMR NB/WB are not supported.	• Compatible image file format : Jpeg • Supported maximum resolution : 15,360 x 8,640 • Supported image effects : 13 effects (**Fade1**, **Fade2**, **Blind**, **Spiral**, **Checker**, **Stairs**, **Linear**, **Wipe**, **Ripple Wash**, **Drop Wave**, **Pin Wheel**, **Random Growth**, **4 Spin**)

Flash

- Compatible with Flash 10.1
- Flash Animation
  - Compatible file format : SWF
- Recommended resolution : 960 x 540
  - Caution

    Performance comparable to Flash Player on a Windows operating system cannot be guaranteed

    Optimization is needed during content creation
- Flash Video
  - Compatible file format : FLV
  - Video

    Codec : H.264 BP

    Resolution : 1920 x 1080
  - Audio

    Codec : H.264 BP
  - Caution

    F4V file format is not supported

    Screen Video is not supported

Power Point

- Compatible document file formats
  - Extension : ppt, pptx
  - Version : Office 97 ~ Office 2007
- Functions not supported
  - Animation effect
  - 3D shapes (which will be displayed in 2D)
  - Header and footer (some subitems are not supported)
  - Word Art
  - Align

    A group alignment error may occur
  - Office 2007

    SmartArt is not fully supported. 97 out of 115 subitems are supported.
  - Object insertion
  - Opening encrypted documents
  - Vertical text

    some subitems are not supported
  - Slide notes and handout

PDF

- Compatible document file formats
  - Extension : pdf
- Functions not supported
  - Content less than 1 pixel not supported because of performance degradation issue.
  - Masked Image, Tiled Image content not supported.
  - Content with Rotated Text, not supported.
  - 3D Shadow Effects not supported.

WORD

- Compatible document file formats
  - Extension : .doc, .docx
  - Version : Office 97 ~ Office 2007
- Functions not supported
  - Page background effect
  - Some paragraph styles
  - Word Art
  - Align
    A group alignment error may occur
  - 3D shapes (which will be displayed in 2D)
  - Office 2007
    SmartArt is not fully supported. 97 out of 115 subitems are supported.
  - Charts
  - Half-width characters
  - Letter spacing
  - Vertical text
    some subitems are not supported
  - Slide notes and handout

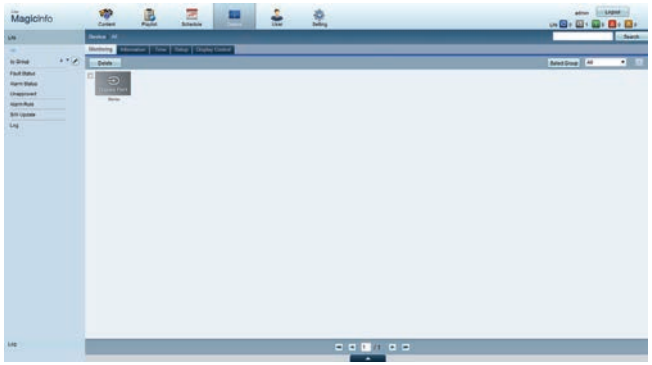
Approving a connected device from the server

— First configure the server network settings before device approval. (page 185)

1 Access the server you have assigned to your device.

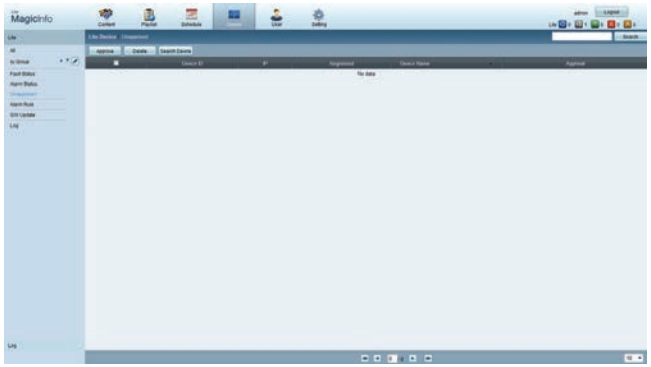
2 Enter your ID and password to log in.

3 Select **Device** from the top menu bar.



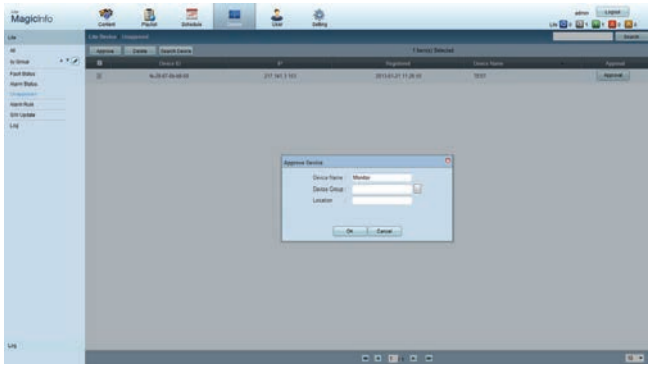
4 Select **Lite** from the menus on the left.

5 Select **Unapproved** from the sub-menus of **Lite**.



6 Select the **Approve** button for your device from the list of unapproved Lite devices.

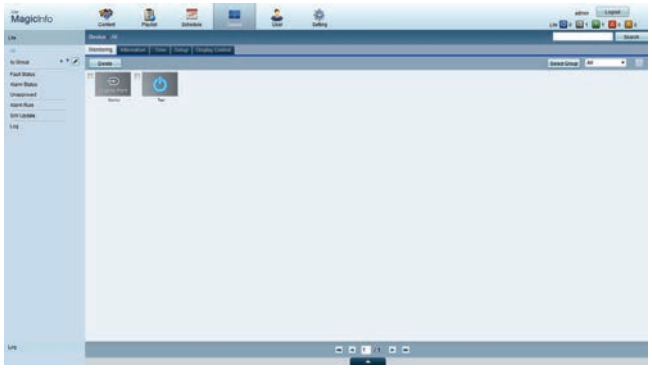
7 Enter the information required to approve the device.



- **Device Name**: Enter the device name.
- **Device Group**: Select [...] to specify the group.
- **Location**: Enter the current location of the device.

— Pressing the **INFO** button on the remote when a network schedule is running will display the details of the schedule. Check that the correct device has been selected by viewing the device ID in the details.

8 Select the **All** menu to check that the device has been registered.



9 When the device is approved by the server, the schedule registered in the selected group will be downloaded to the device. The schedule will run after it is downloaded.

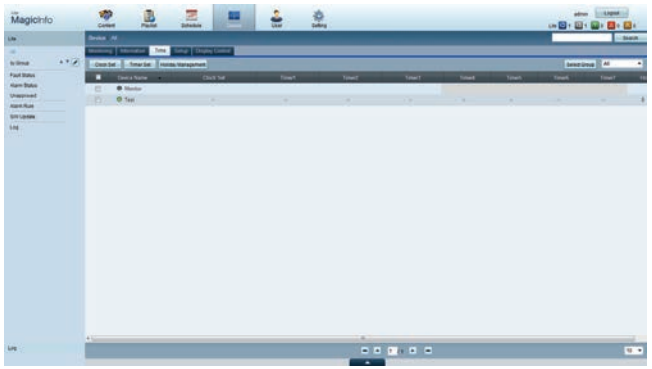
— For further details on how to configure a schedule, refer to the <MagicInfo Lite Server user's manual>.

— If a device is deleted from the list of devices approved by the server, the device will reboot to reset its settings.

Setting the current time

A schedule may not run if the time set on the device is different from the server's current time.

1 Go to the tabs **Device** → **Time**.



2 Select your device.

3 Select **Clock Set**, and sync the time with the server.

- When connecting to the server for the first time, the time on the product is set using the GMT time of the region where the server is installed.
- The time on the product can be changed from the server as shown in step 3.
- Turning the product off and then on again will restore the time setting on the product to the last time that was set from the server.

— For further details on how to manage the time (scheduling, holiday management, etc.), refer to the <MagicInfo Lite Server user's manual>.

MagicInfo Lite

MENU → **Support** → **Contents Home** → **MagicInfo Lite** → **ENTER**

— To launch **MagicInfo Lite**, select **MagicInfo Lite** for the **Player Mode** on the **System**.

— Press the **MagicInfo Lite/S** button on the remote control.

MagicInfo Lite Player

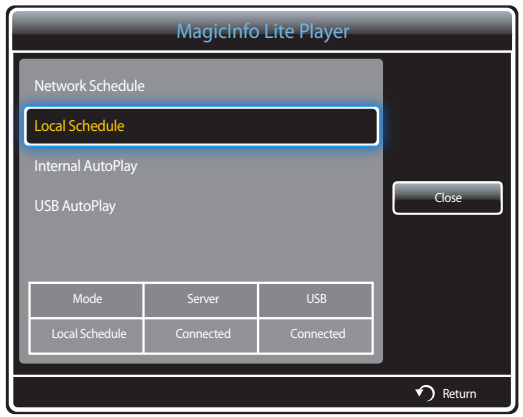
Network Schedule

You can view whether the server is connected (approval) in the **MagicInfo Lite** menu screen. To view whether the server is connected when a **Network Schedule** is running, press **INFO** on the remote.

1 Select **MagicInfo Lite Player** in the **MagicInfo Lite** menu.

2 Select **Network Schedule** in the **MagicInfo Lite Player** menu.

Local Schedule



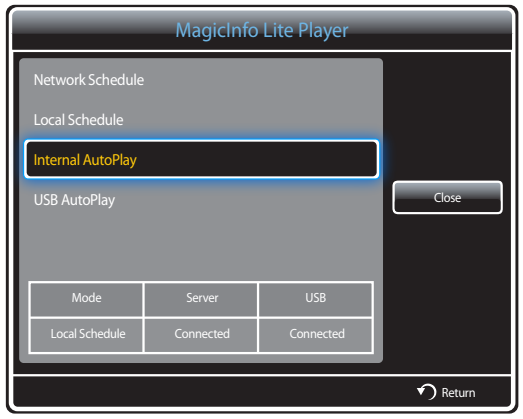
Go to **Local Schedule Manager** → Click **Create** to create a schedule → Select the schedule you want to run → **Run**

1 Select **Local Schedule** in the **MagicInfo Lite Player** menu screen.

Run schedules created in **Local Schedule Manager**.

— This menu is disabled if there was no schedule run previously in **Local Schedule Manager**.

Internal AutoPlay

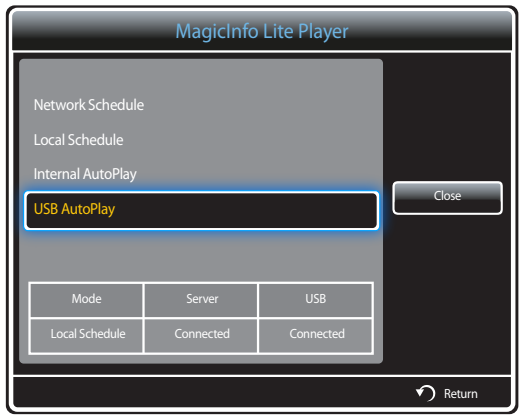


— To enable and use the option, ensure at least one content file is saved in **Internal Memory**. The content file must be a file other than a music or text file.

1 Select **Internal AutoPlay** in the **MagicInfo Lite Player** menu screen.

- Play content, which has been copied to **Internal Memory**, in alphabetical order.

USB AutoPlay



— To enable and use the option, ensure at least one content file is saved in the "**MagicInfoSlide**" folder on the USB device. The content file must be a file other than a music or text file.

— Ensure a USB device is inserted. Be sure to create a folder named "**MagicInfoSlide**" in the USB device and put content in the folder.

1 Select **USB AutoPlay** in the **MagicInfo Lite Player** menu screen.

- The content contained in the "**MagicInfoSlide**" folder on the USB device will play in alphabetical order.
- **USB AutoPlay** will automatically run if USB memory is connected when **Network Schedule**, **Local Schedule** or **Internal AutoPlay** is running.

Local Schedule Manager

Configure the settings for playback from **Local Schedule**.

Alternatively, select and play content from internal or USB memory according to the customized playback sequence.

Registering a Local Schedule

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.

2 Select **Create** in the **Local Schedule Manager** screen.

3 Select **Time** to set the time you want to play content.

- A maximum of 24 schedules can be created.
- If more than one schedule is created, the start time must be different for each schedule. (Example of an incorrect setting: 12:00 am - 12:00 am / 12:00 am - 11:00 pm)
- When there are multiple schedules, playback starts from the schedule at the bottom of the list.

4 Select **Content** to specify the content you want to play.

– A maximum of 99 content files can be selected.

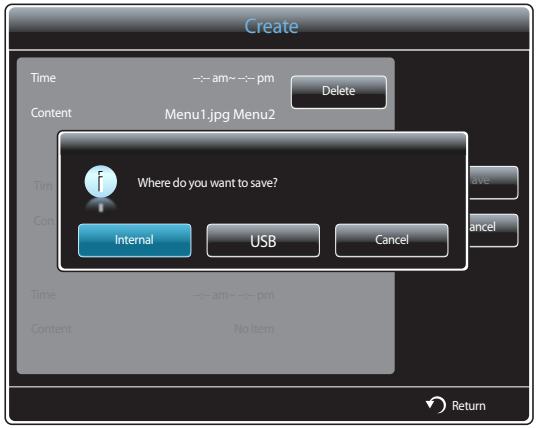
5 Select **Duration**.

Specify the sequence and time duration to play content files.

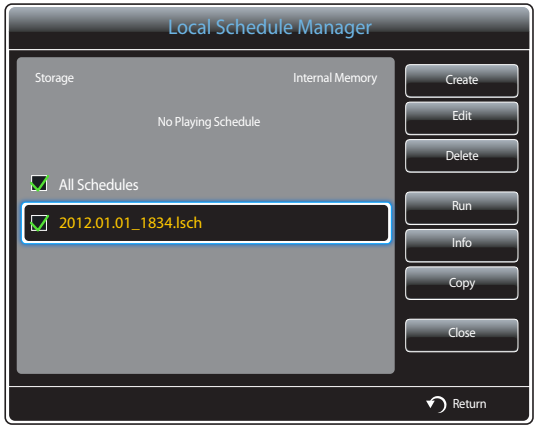
- Changing the playing sequence
  Select a content file and change the sequence using the **Up** or **Down** button.
- **Duration**
  Set the duration to play content.
  – **Duration** cannot be specified for videos.
  – **Duration** must be at least 5 seconds.

Press **Save** to save the settings.

6 Select **Save**. Select the memory space you want to save the content to.



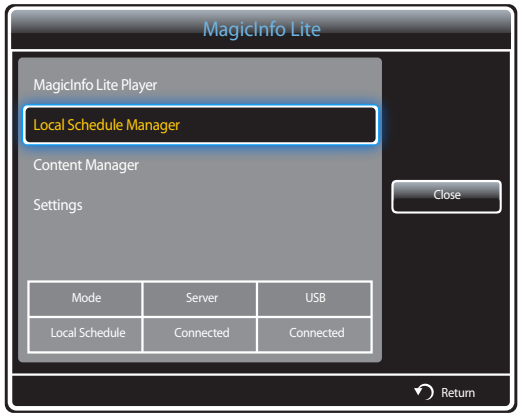
7 Check that the schedule has been added to the **Local Schedule Manager**.



Modifying a Local Schedule

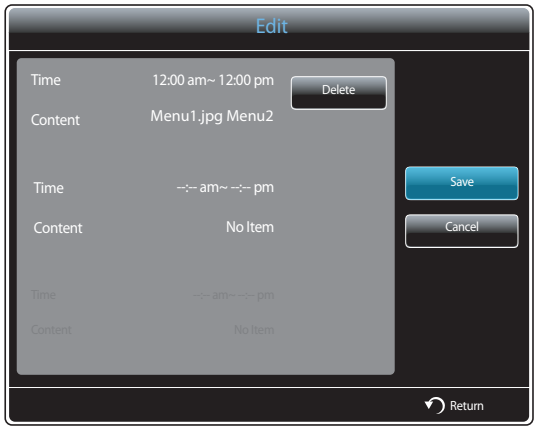
— Ensure at least one **Local Schedule** is registered.

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.



2 Select the local schedule you want to edit, and select **Edit**.

3 Change the details of the local schedule. Next, select **Save**.

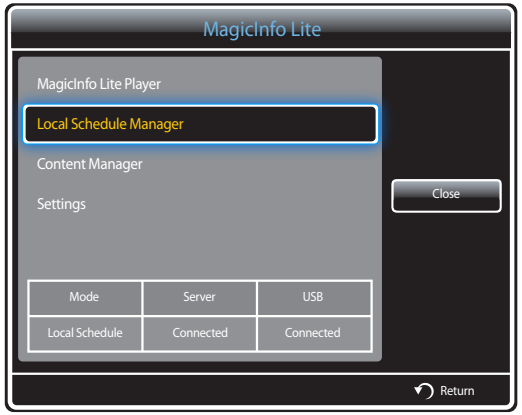


Deleting a Local Schedule

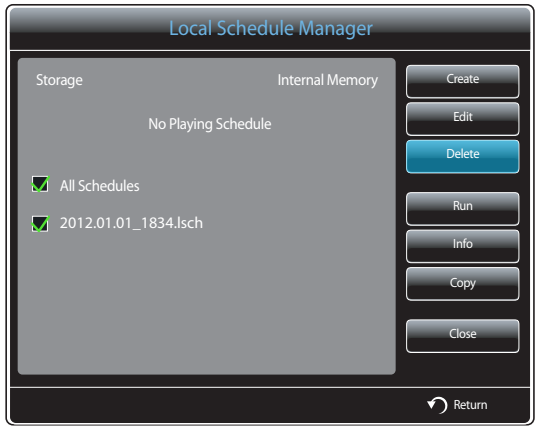
— Ensure at least one **Local Schedule** is registered.

— If a copied local schedule is deleted, content files in the schedule will also be deleted.

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.



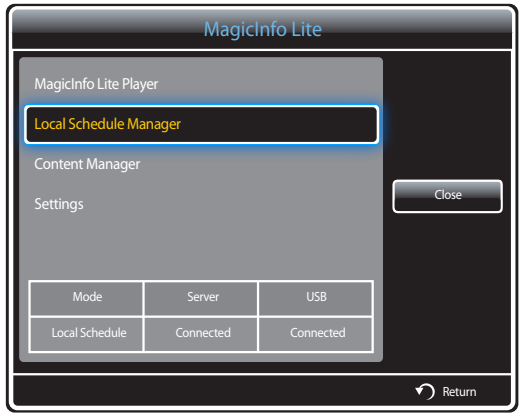
2 Select the local schedule you want to delete, and select **Delete**.



Running a Local Schedule

— Ensure at least one **Local Schedule** is registered.

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.

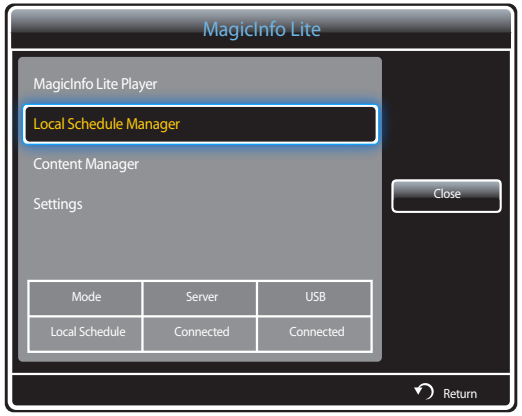


2 Select the local schedule you want to run. Next, select **Run**.

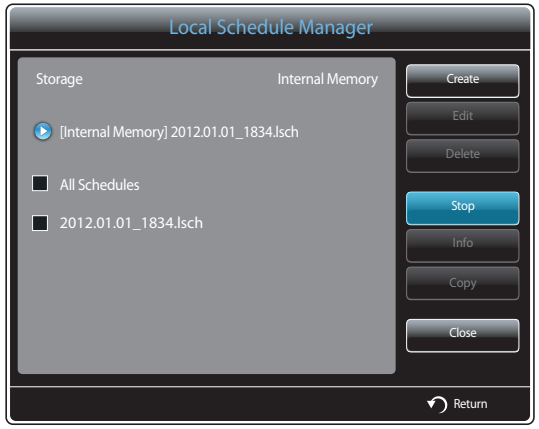
Stopping a Local Schedule

— This option is available only when a schedule is running.
Selecting **Stop** will change the running mode from **Local Schedule** to **Network Schedule**.

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.

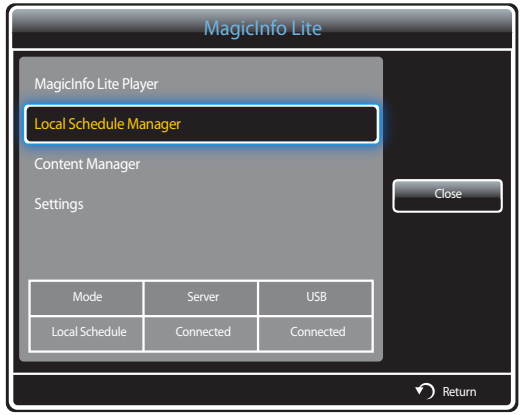


2 Select **Stop**.



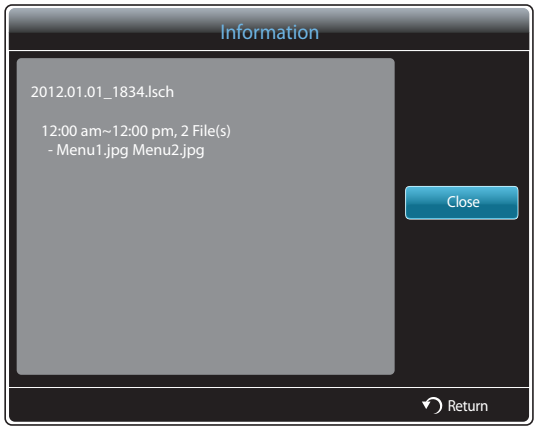
Viewing the details of a Local Schedule

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.



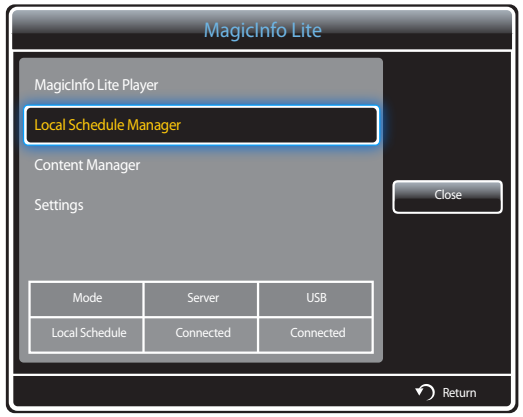
2 Select the local schedule you want to view details, and select **Info**.

3 The details of the schedule will be displayed.

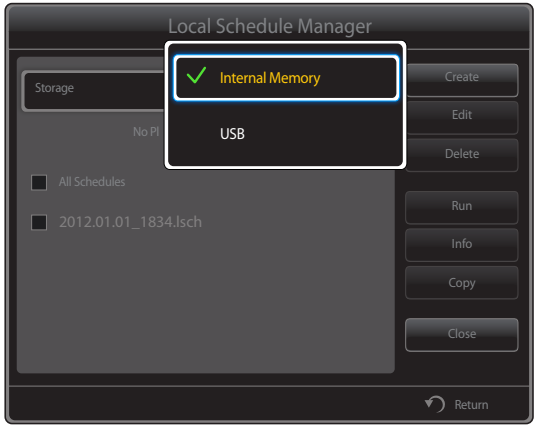


Copying a Local Schedule

1 Select **Local Schedule Manager** in the **MagicInfo Lite** menu screen.



2 Select a storage device where the local schedule files to copy are saved.



- **USB** → **Internal Memory**: Content files in a copied schedule are saved to a subfolder under the local schedules folder in **Internal Memory**. The subfolder is assigned the schedule name.
- **Internal Memory** → **USB**: Content files in a copied schedule are saved to a subfolder under the local schedules folder on the **USB** memory device. The subfolder is assigned the schedule name.

3 Select local schedule files and press **Copy**.

4 A window appears asking if you want to copy the files to the **Internal Memory** or **USB** memory device. Select **Yes** to copy the files.

Content Manager

Copying content

1 Select **Content Manager** in the **MagicInfo Lite** menu screen.

2 Select the content you want to copy.

- If content is selected from **Internal Memory**: You can copy the content under **Internal Memory** to **USB** memory.
- If content is selected from **USB**: You can copy the content under **USB** memory to **Internal Memory**.

  — Selecting content under **Internal Memory** and **USB** memory at the same time will disable copying.

3 Next, select **Copy**.

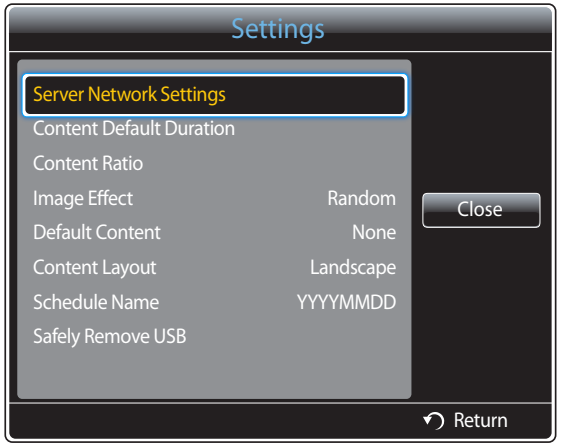
Deleting content

1 Select **Content Manager** in the **MagicInfo Lite** menu screen.

2 Select the content you want to delete. Next, select **Delete**.

- Content under **Internal Memory** and **USB** memory can be deleted at the same time.

Settings



– The displayed image may differ depending on the model.

Server Network Settings

To run **MagicInfo Lite**, connect to a network.

Server

Enter the **MagicInfo Lite** server settings.

(E.g.: http://192.168.0.10:7001/MagicInfo/)

- If the **SSL** option is enabled, the server is configured to use **https** and data transfer is encrypted.

— Enter the server IP address and port number. Use 7001 as the port number. (If unable to connect to the server using port number 7001, check with your server administrator to find the correct port number and then change the port number.)

FTP Mode

Specify the FTP operating mode.

- **Active** / **Passive**

Default Storage

Specify the location you want to save content (downloaded from the server) to.

- **Internal Memory**: Save the content to the internal memory of the product.
- **USB**: Save the content to USB memory.

— If a **Network Settings** is running when USB memory is not connected, the default content will run.

Content Default Duration

Specify the duration to play content.

- **Image Viewer Time**, **Doc Viewer Time**, **PPT Viewer Time**, **PDF Viewer Time**, **Flash Viewer Time**

— The duration must be at least 5 seconds.

Content Ratio

Specify the display aspect ratio by type when playing content.

- **Doc Ratio**, **PPT Ratio**, **PDF Ratio**, **Video Ratio**
  - **Original**: Display content with the original size.
  - **Full Screen**: Display content in full screen.

Image Effect

Configures the image transition effects.

- **Fade1**, **Fade2**, **Blind**, **Spiral**, **Checker**, **Linear**, **Stairs**, **Wipe**, **Ripple Wash**, **Drop Wave**, **Pin Wheel**, **Random Growth**, **4 Spin**, **Random**, **None**

Default Content

Specify the content to play by default when launching **MagicInfo Lite**.

- Content of up to 20MB is supported for **Default Content**.

Content Layout

Switch the orientation of playing content to **Landscape** or **Portrait** mode.

- **Landscape** / **Portrait**

— If **Content Layout** is **Portrait** view, it does not support VP8 video codec.

Schedule Name

Select a schedule title format when creating a local schedule.

- **YYYYMMDD** / **YYYYDDMM** / **DDMMYYYY**

Safely Remove USB

Safely removes USB memory

Delete All Content

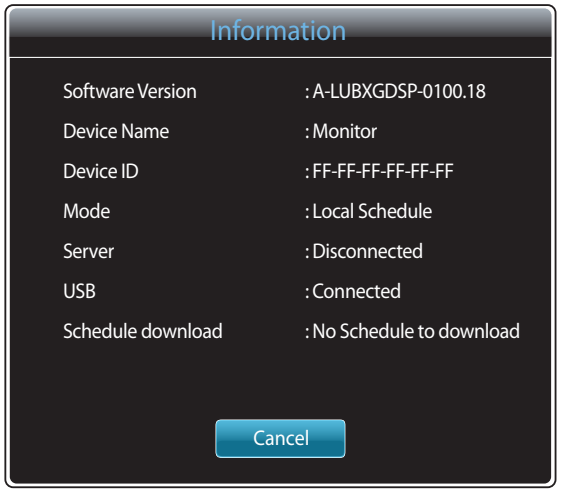
Delete all the content files in **Internal Memory**.

Reset Settings

Restore all the values under **Settings** to the default when the product was purchased.

When Content is Running

Viewing the details of the content that is running

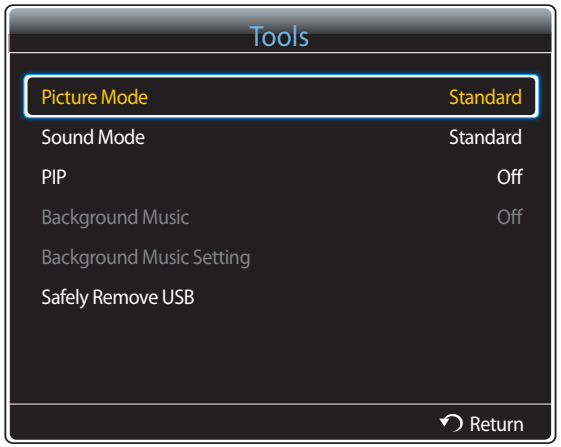


– The displayed image may differ depending on the model.

Press the **INFO** button on the remote control.

- **Software Version**: Displays the software version of a device
- **Device Name**: Displays the name of a device recognized by the server
- **Device ID**: Displays the original identification number of a device
- **Mode**: Displays the current operating mode (**Network Schedule**, **Local Schedule**, **Internal AutoPlay** or **USB AutoPlay**) of **MagicInfo Lite Player**
- **Server**: Displays the connection status (**Connected**, **Disconnected** or **Non-Approval**) of the server
- **USB**: Displays the connection status of a USB device
- **Schedule download**: Displays the progress of a network schedule being downloaded from the server

Changing the settings for the content that is running



– The displayed image may differ depending on the model.

Press the **TOOLS** button on the remote control.

You can change the **Picture Mode** or **Sound Mode** setting or safely remove a USB device (**Safely Remove USB**) while content is playing by pressing the **TOOLS** button on the remote control.

- **Picture Mode** (**Dynamic** / **Standard** / **Natural** / **Movie**)
  Customizes the screen settings for the content currently playing
- **Sound Mode** (**Standard** / **Music** / **Movie** / **Clear Voice** / **Amplify**)
  Customizes the audio settings for the content currently playing
- **PIP** (**Off** / **On**)
  Activate or deactivate the PIP function.
- **Background Music** (**Off** / **On**)
  Activate or deactivate the **Background Music** function.
- **Background Music Setting** (**Shuffle** / **Play** / **Cancel** / **Deselect**)
  Set music files saved in the **Internal Memory** as **Background Music**.

  — To enable the **Background Music Setting**, make sure at least one MP3 file is saved in **Internal Memory**.
- **Safely Remove USB**
  Safely removes USB memory

Chapter 12
MagicInfo Premium S

– To launch **MagicInfo Premium S**, select **MagicInfo Premium S** for the **Player Mode** on the **System**.

A license needs to be purchased to use **MagicInfo Premium S**.

To download the software, go to the Samsung homepage at http://www.samsunglfd.com.

To purchase a license, contact a Customer Server Center.

File Formats Compatible with MagicInfo Premium S Player

Read before using MagicInfo Premium S Player

- Supported file systems include FAT32 and NTFS.
- A file with a vertical and horizontal resolution larger than the maximum resolution cannot be played. Check the vertical and horizontal resolution of the file.
- Check the supported video and audio Codec types and Versions.
- Check the supported file versions.
  - Flash version up to 10.1 is supported
  - PowerPoint version up to 97 – 2007 is supported
- Only the last USB device that was connected is recognized.

— See page 167 for further details on supported codecs.

Video	Audio	Image
• 3D video is not supported. • Content with a resolution larger than the resolution specified in the table above is not supported. • Video content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy video during playback. • Video content will not play, or not play correctly, if there is an error in the content or the container. • Some USB/digital camera devices may not be compatible with the player. • Supports up to H.264, Level 4.1 • H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported. • For all Video codecs except MVC, VP8, VP6: – Below 1280 x 720: 60 frame max – Above 1280 x 720: 30 frame max • GMC 2 or higher is not supported. • Supports only BD MVC Spec. • Some codecs may not be supported in dual playback mode, where two video files play simultaneously, and portrait playback mode.	• Audio content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy audio during playback. • Video content will not play, or not play correctly, if there is an error in the content or the container. • Some USB/digital camera devices may not be compatible with the player. • Supports up to WMA 10 Pro 5.1 channel. WMA lossless audio is not supported. • QCELP, AMR NB/WB are not supported.	• Compatible image file format : Jpeg • Supported maximum resolution : 15,360 x 8,640 • Supported image effects : 8 effects (**Fade1**, **Fade2**, **Blind**, **Spiral**, **Checker**, **Linear**, **Stairs**, **Wipe**)

Flash

- Compatible with Flash 10.1
- Flash Animation
  - Compatible file format : SWF
- Recommended resolution : 960 x 540
  - Caution

    Performance comparable to Flash Player on a Windows operating system cannot be guaranteed

    Optimization is needed during content creation
- Flash Video
  - Compatible file format : FLV
  - Video

    Codec : H.264 BP

    Resolution : 1920 x 1080
  - Audio

    Codec : H.264 BP
  - Caution

    F4V file format is not supported

    Screen Video is not supported

Power Point

- Compatible document file formats
  - Extension : ppt, pptx
  - Version : Office 97 ~ Office 2007
- Functions not supported
  - Animation effect
  - 3D shapes (which will be displayed in 2D)
  - Header and footer (some subitems are not supported)
  - Word Art
  - Align

    A group alignment error may occur
  - Office 2007

    SmartArt is not fully supported. 97 out of 115 subitems are supported.
  - Object insertion
  - Half-width characters
  - Letter spacing
  - Charts
  - Vertical text

    some subitems are not supported
  - Slide notes and handout

PDF

- Compatible document file formats
  - Extension : pdf
- Functions not supported
  - Content less than 1 pixel not supported because of performance degradation issue.
  - Masked Image, Tiled Image content not supported.
  - Content with Rotated Text, not supported.
  - 3D Shadow Effects not supported.
  - Some characters not supported

    (Special characters may be corrupted)

WORD	Template files	LFD
• Compatible document file formats – Extension : .doc, .docx – Version : Office 97 ~ Office 2007 • Functions not supported – Page background effect – Some paragraph styles – Word Art – Align A group alignment error may occur – 3D shapes (which will be displayed in 2D) – Office 2007 SmartArt is not fully supported. 97 out of 115 subitems are supported. – Charts – Half-width characters – Letter spacing – Vertical text some subitems are not supported – Slide notes and handout	• Creation/editing/playback are only available in **Template Manager**.	• Supported in **USB AutoPlay** and **Network Schedule** (Authored in a PC authoring tool for **Premium S Player**) • Compatible document file formats – Extension : .lfd

Network Schedule Multiframe

Playback restrictions

- A maximum of two video files (**Videos**) can be played simultaneously.
- In portrait playback mode, only one video file can be played at a time.
- If **PIP** mode is enabled, more than one video (**Videos**) file cannot be played.
- More than one **Flash** file cannot be played.
- For **Office** files (PPT and Word files) and **PDF** files, only one file type is supported at a time.
- LFD(.lfd) files are not supported.

Sound output restrictions

- More than one sound output cannot be used.
- Playback priority: **Flash** file > network BGM > local BGM > video file in the main frame selected by the user
  - Network BGM: Settings can be configured in step 1 when creating a server schedule.
  - Local BGM: BGM settings can be configured using the tools displayed after the **TOOLS** button is pressed during **MagicInfo Premium S** playback.
  - User-selected main frame: Main frame settings can be configured in step 2 when creating a server schedule.

Template files and LFD(.lfd) files

Restrictions

- Playback using **Internal AutoPlay** / **USB AutoPlay** is only available.
- Ensure a distributed folder (content / schedules) exists in **Internal Memory** / **USB** memory.

Playback restrictions

- A maximum of two video (**Videos**) files can be played.
- If **PIP** mode is enabled, more than one video (**Videos**) file cannot be played.
- More than one **Flash** file cannot be played.
- For **Office** files (PPT and Word files) and **PDF** files, only one file type is supported at a time.
- Multiple videos (**Videos**) cannot be played on a single display of a video wall simultaneously.
- More than one **PIP** content file cannot be played.

Sound output restrictions

- More than one sound output cannot be used.
- Playback priority: **Flash** file > network BGM > local BGM > video file in the main frame selected by the user

  — User-selected main frame: Sound output can be selected in step 3 while authoring in **Template Manager**

Others

Flash performance can be slower on a PC (H/W performance restrictions)

PIP function restrictions

- **PIP** function is not available during **Flash** playback.
- Not supported if the content layout is **Portrait**. (Note that **PIP** is supported when configured in **Template Manager** and applied to an .lfd file.)
- **PIP** configured in **Template Manager** or applied to an .lfd file and PIP configured on the product cannot be used simultaneously.
- **PIP** is always in **Landscape** mode if configured in **Template Manager** or applied to an .lfd file.
  (Note that the display cannot be rotated when the content layout is **Portrait**.)

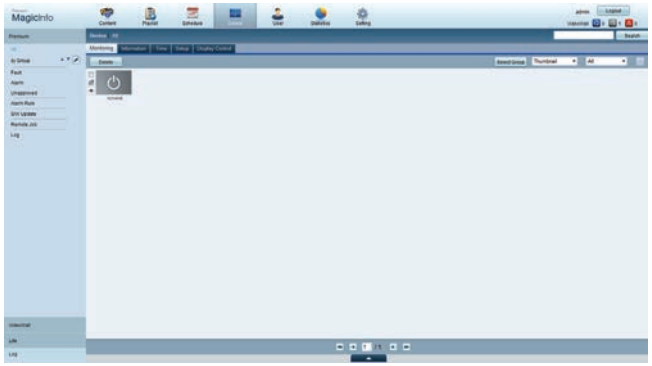
Approving a connected device from the server

— First configure the server network settings before device approval. (page 212)

1 Access the server you have assigned to your device.

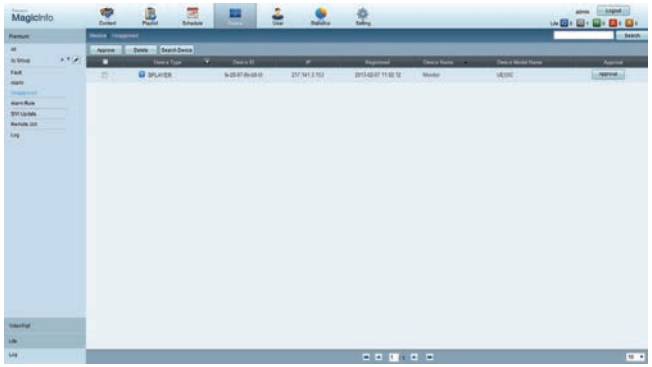
2 Enter your ID and password to log in.

3 Select **Device** from the top menu bar.



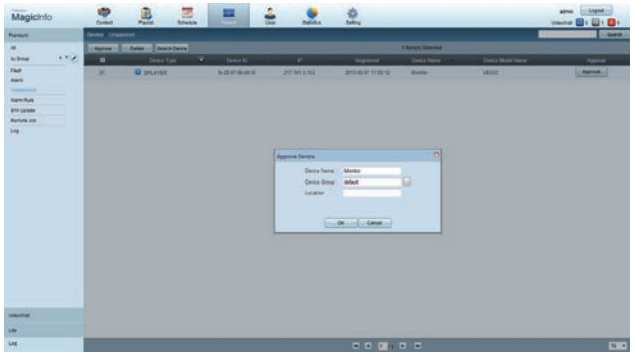
4 Select **Premium** from the menus on the left.

5 Select **Unapproved** from the sub-menus of **Premium**.



6 Select the **Approve** button for your device from the list of unapproved Premium devices.

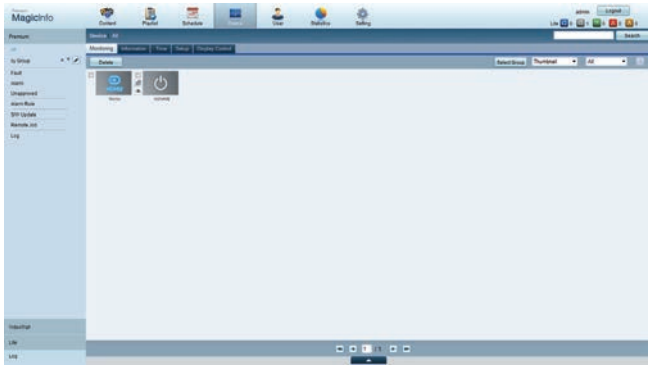
7 Enter the information required to approve the device.



- **Device Name**: Enter the device name.
- **Device Group**: Select [...] to specify the group.
- **Location**: Enter the current location of the device.

— Pressing the **INFO** button on the remote when a network schedule is running will display the details of the schedule. Check that the correct device has been selected by viewing the device ID in the details.

8 Select the **All** menu to check that the device has been registered.



9 When the device is approved by the server, the schedule registered in the selected group will be downloaded to the device. The schedule will run after it is downloaded.

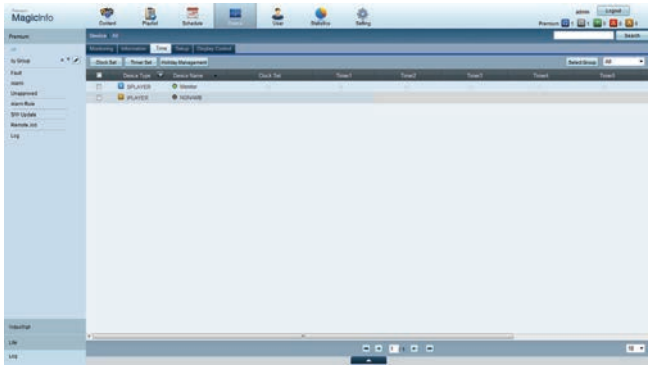
— For further details on how to configure a schedule, refer to the <MagicInfo Premium Server user's manual>.

— If a device is deleted from the list of devices approved by the server, the device will reboot to reset its settings.

Setting the current time

A schedule may not run if the time set on the device is different from the server's current time.

1 Go to the tabs **Device** → **Time**.



2 Select your device.

3 Select **Clock Set**, and sync the time with the server.

- When connecting to the server for the first time, the time on the product is set using the GMT time of the region where the server is installed.
- The time on the product can be changed from the server as shown in step 3.
- Turning the product off and then on again will restore the time setting on the product to the last time that was set from the server.

— For further details on how to manage the time (scheduling, holiday management, etc.), refer to the <MagicInfo Premium Server user's manual>.

MagicInfo Premium S

MENU ⟶ **Support** ⟶ **Contents Home** ⟶ **MagicInfo Premium S** ⟶ **ENTER**

— To launch **MagicInfo Premium S**, select **MagicInfo Premium S** for the **Player Mode** on the **System**.

— Press the **MagicInfo Lite/S** button on the remote control.

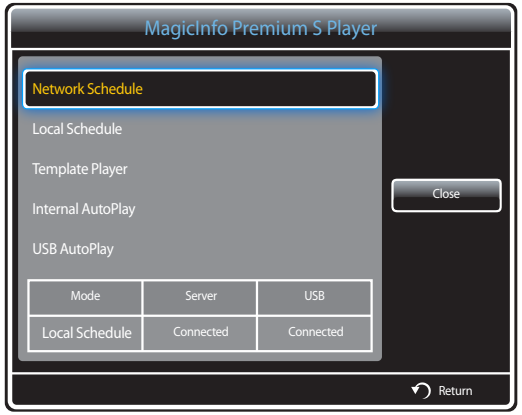
MagicInfo Premium S Player

Network Schedule

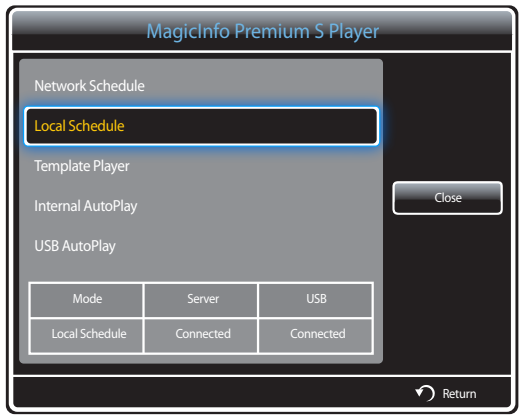
You can view whether the server is connected (approval) in the **MagicInfo Premium S** menu screen. To view whether the server is connected when a **Network Schedule** is running, press **INFO** on the remote.

1 Select **MagicInfo Premium S Player** in the **MagicInfo Premium S** menu.

2 Select **Network Schedule** in the **MagicInfo Premium S Player** menu.



Local Schedule



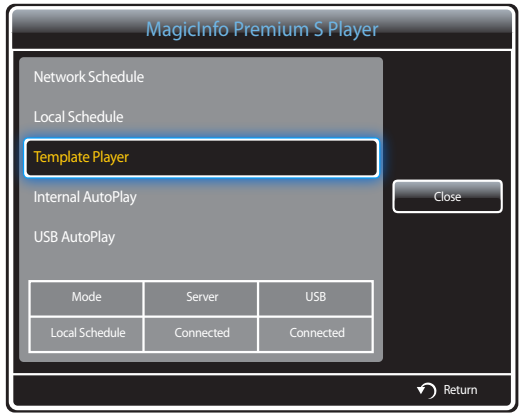
Go to **Local Schedule Manager** → Click **Create** to create a schedule → Select the schedule you want to run → **Run**

1 Select **Local Schedule** in the **MagicInfo Premium S Player** menu screen.

Run schedules created in **Local Schedule Manager**.

— This menu is disabled if there was no schedule run previously in **Local Schedule Manager**.

Template Player



Go to **Template Manager** → Click **Create** to create a template → Select the template you want to run → **Run**

1 Select **Template Player** in the **MagicInfo Premium S Player** menu screen.

Run templates created in **Template Manager**.

— This menu is disabled if there was no template run previously in **Template Manager**.

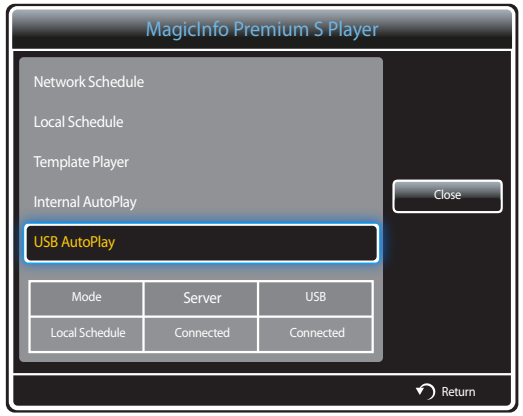
Internal AutoPlay

— To enable and use the option, ensure at least one content file is saved in **Internal Memory**. The content file must be a file other than a music or text file.

1 Select **Internal AutoPlay** in the **MagicInfo Premium S Player** menu screen.

- Play content, which has been copied to **Internal Memory**, in alphabetical order.
  - — If a distributed folder exists in **Internal Memory**, schedules in the distributed folder will run when **Internal AutoPlay** is executed.
  - — If a distributed folder does not exist in **Internal Memory**, content files in **Internal Memory** will play in alphabetical order when **Internal AutoPlay** is executed.

USB AutoPlay



— To enable and use the option, ensure at least one content file is saved in the "**MagicInfoSlide**" folder on the USB device. The content file must be a file other than a music or text file.

— Ensure a USB device is inserted. Be sure to create a folder named "**MagicInfoSlide**" in the USB device and put content in the folder.

1 Select **USB AutoPlay** in the **MagicInfo Premium S Player** menu screen.

- The content contained in the "**MagicInfoSlide**" folder on the USB device will play in alphabetical order.
- **USB AutoPlay** will automatically run if USB memory is connected when **Network Schedule**, **Local Schedule** or **Internal AutoPlay** is running.
  - — If a distributed folder exists on the **USB** memory device, schedules in the distributed folder will run when **USB AutoPlay** is executed.
  - — If a distributed folder does not exist on the **USB** memory device, content files in the "**MagicInfoSlide**" folder on the **USB** memory device will run in alphabetical order when **USB AutoPlay** is executed.

Local Schedule Manager

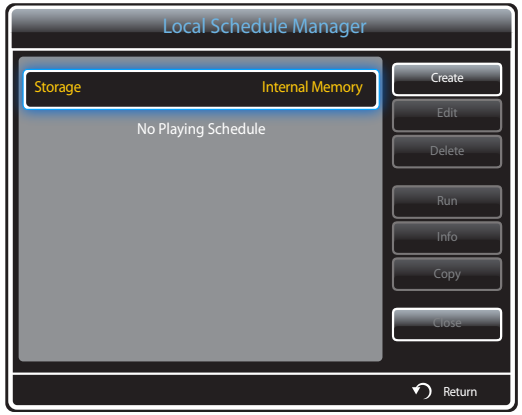
Configure the settings for playback from **Local Schedule**.

Alternatively, select and play content from internal or USB memory according to the customized playback sequence.

Registering a Local Schedule

1 Select **Local Schedule Manager** in the **MagicInfo Premium S** menu screen.

2 Select **Create** in the **Local Schedule Manager** screen.



3 Select **Time** to set the time you want to play content.

- A maximum of 24 schedules can be created.
- If more than one schedule is created, the start time must be different for each schedule. (Example of an incorrect setting: 12:00 am - 12:00 am / 12:00 am - 11:00 pm)
- When there are multiple schedules, playback starts from the schedule at the bottom of the list.

4 Select **Content** to specify the content you want to play.

– A maximum of 99 content files can be selected.

5 Select **Duration**.

Specify the sequence and time duration to play content files.

- Changing the playing sequence
  Select a content file and change the sequence using the **Up** or **Down** button.
- **Duration**
  Set the duration to play content.
  – **Duration** cannot be specified for videos.
  – **Duration** must be at least 5 seconds.

Press **Save** to save the settings.

6 Select **Save**. Select the memory space you want to save the content to.

7 Check that the schedule has been added to the **Local Schedule Manager**.

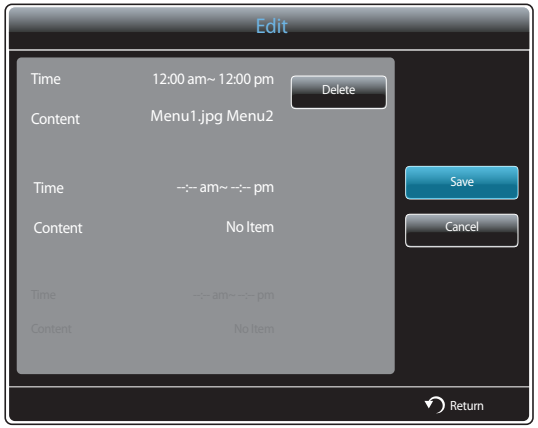
Modifying a Local Schedule

— Ensure at least one **Local Schedule** is registered.

1 Select **Local Schedule Manager** in the **MagicInfo Premium S** menu screen.

2 Select the local schedule you want to edit, and select **Edit**.

3 Change the details of the local schedule. Next, select **Save**.



Deleting a Local Schedule

— Ensure at least one **Local Schedule** is registered.

— If a copied local schedule is deleted, content files (except for template files) in the schedule will also be deleted.

1 Select **Local Schedule Manager** in the **MagicInfo Premium S** menu screen.

2 Select the local schedule you want to delete, and select **Delete**.

Running a Local Schedule

— Ensure at least one **Local Schedule** is registered.

1 Select **Local Schedule Manager** in the **MagicInfo Premium S** menu screen.

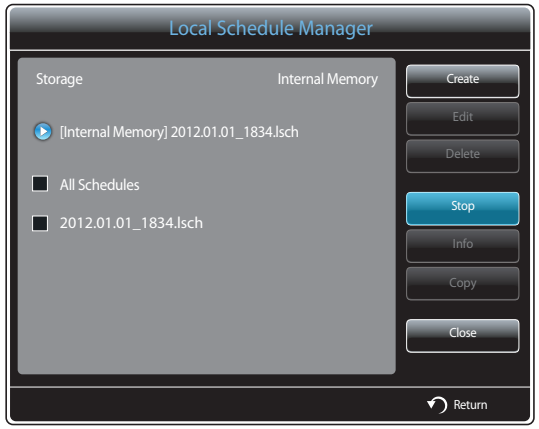
2 Select the local schedule you want to run. Next, select **Run**.

Stopping a Local Schedule

— This option is available only when a schedule is running.
Selecting **Stop** will change the running mode from **Local Schedule** to **Network Schedule**.

1 Select **Local Schedule Manager** in the **MagicInfo Premium S** menu screen.

2 Select **Stop**.

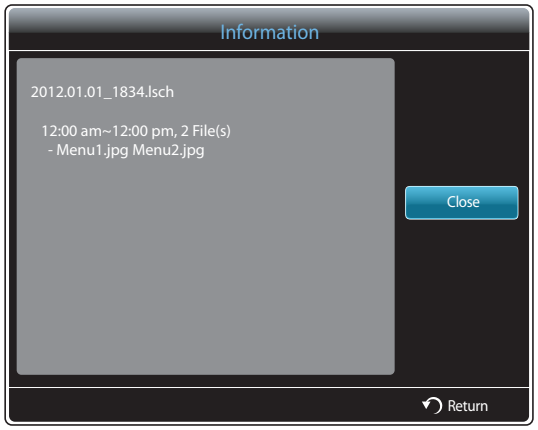


Viewing the details of a Local Schedule

1 Select **Local Schedule Manager** in the **MagicInfo Premium S** menu screen.

2 Select the local schedule you want to view details, and select **Info**.

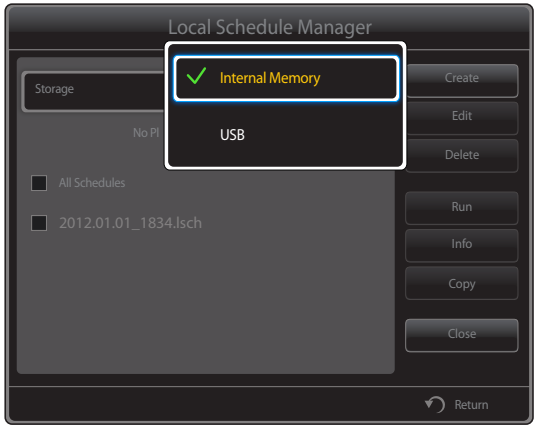
3 The details of the schedule will be displayed.



Copying a Local Schedule

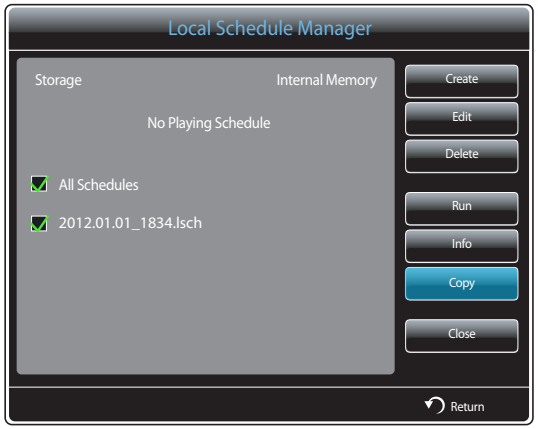
1 Select **Local Schedule Manager** in the **MagicInfo Premium S** menu screen.

2 Select a storage device where the local schedule files to copy are saved.



- **USB**→ **Internal Memory**: Content files (except for templates) in a copied schedule are saved to a subfolder under the local schedules folder in **Internal Memory**. The subfolder is assigned the schedule name. If a content file in a copied schedule contains a template file, the content file is saved to a subfolder under the templates folder in **Internal Memory**. The subfolder is assigned the template name.
- **Internal Memory** → **USB**: Content files (except for templates) in a copied schedule are saved to a subfolder under the local schedules folder on the **USB** memory device. The subfolder is assigned the schedule name. If a content file in a copied schedule contains a template file, the content file is saved to a subfolder under the templates folder on the **USB** memory device. The subfolder is assigned the template name.

3 Select local schedule files and press **Copy**.



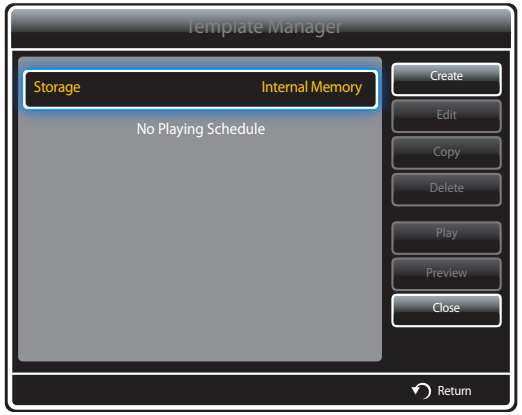
4 A window appears asking if you want to copy the files to the **Internal Memory** or **USB** memory device. Select **Yes** to copy the files.

Template Manager

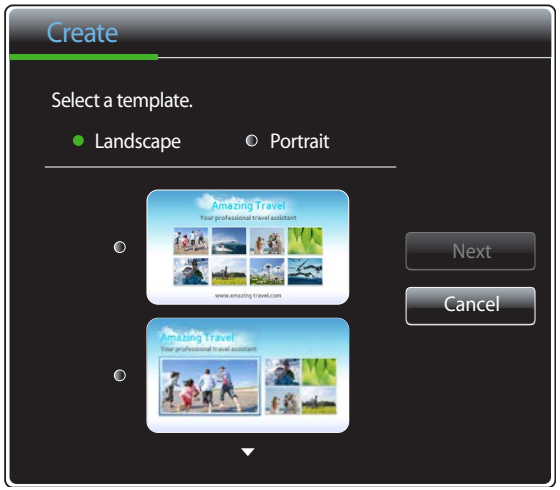
Registering a Template

1 Select **Template Manager** in the **MagicInfo Premium S** menu screen.

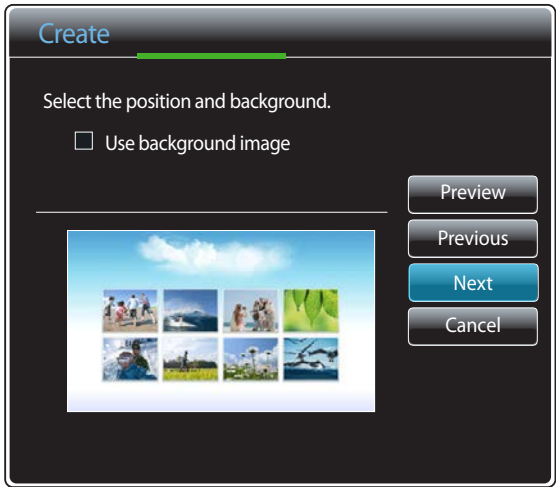
2 Select **Create** in the **Template Manager** screen.



3 Select a template in **Landscape** or **Portrait** mode.

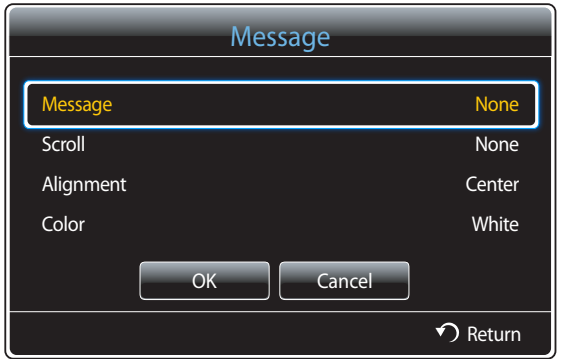


4 Organize a template by inserting text, video, photo, or PDF files as desired.



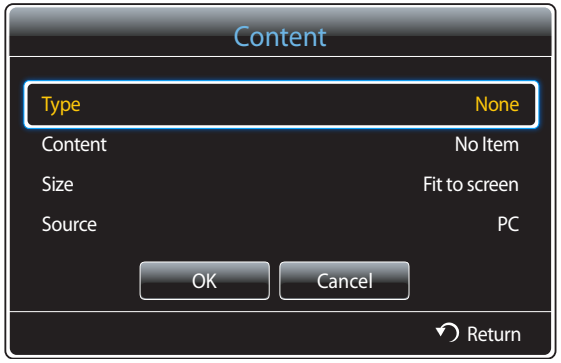
– To load a file or manually enter text, select **Input Text**.

Message



- **Message**: Select a message input mode.
  - **None**: Select this mode if you do not want to input a message.
  - **From File**: Select a .txt file.
  - **User Input**: Input a message using the virtual keyboard. A message can be up to 27 characters long.
- **Scroll**: Select a message scroll direction.
  - **None** / **Left to Right** / **Right to Left** / **Up to Bottom** / **Bottom to Up**
- **Alignment**: Select a message alignment mode.
  - **Left** / **Center** / **Right**
- **Color**: Select a message text color.
  - **White** / **Black** / **Red** / **Orange** / **Yellow** / **Light Green** / **Green** / **Cyan Blue** / **Blue** / **Light Blue** / **Flesh** / **Violet** / **Magenta** / **Dark Cool Brown** / **Light Gray** / **Dark Gray**

Content



- **Type**: Select a file type to use to organize a template.
  - **None** / **PIP** / **Videos** / **Image** / **Flash** / **Office** / **PDF**
- **Content**: Select a file saved in **Internal Memory** or a **USB** device.
- **Size**: Specify the screen size when displaying a content file on the template page.
  - **Fit to screen** / **Lock Aspect Ratio**
- **Source**: This option is enabled when **Type** is set to **PIP**.
  - **PC** / **DVI** / **HDMI**

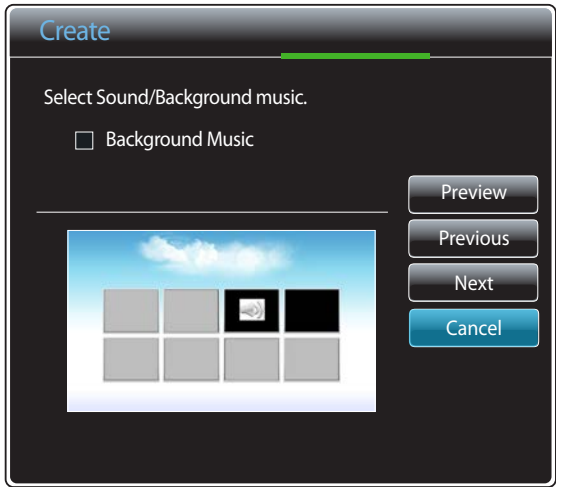
— A template can contain a maximum of two **Videos** files.

— A template can contain only one **PIP** file.
(If a **PIP** file is selected, only one **Videos** file can be selected.)

— An **Office** file and a **PDF** file cannot be contained in the same template.

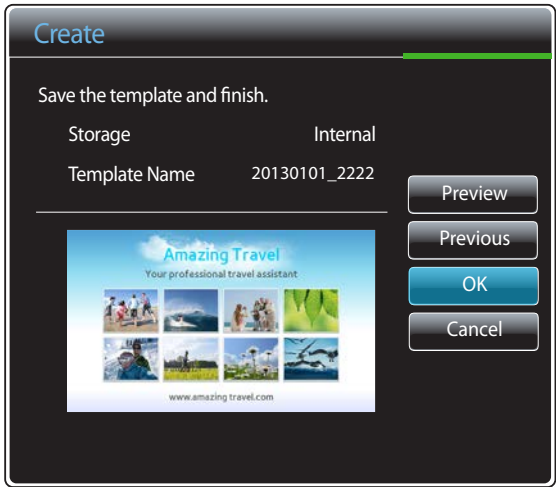
— A template cannot contain more than one **Flash** file.

5 Select Sound/Background music.

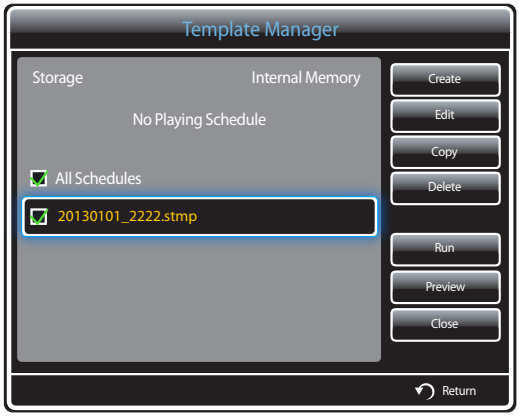


- If two **Videos** files are assigned, select the file with the sound you want to use.
  - If one of the video files includes **PIP** content, sound from the **PIP** content can be selected.
- If a **Flash** file is selected, it is not possible to enable the sound output from another file or the background music. (Step 5 is skipped.)
- If **Background Music** is enabled, the sound settings function in a file is not supported.

6 Specify **Storage** and change the **Template Name**. Select **OK**.



7 Check that the template has been added to the **Template Manager**.

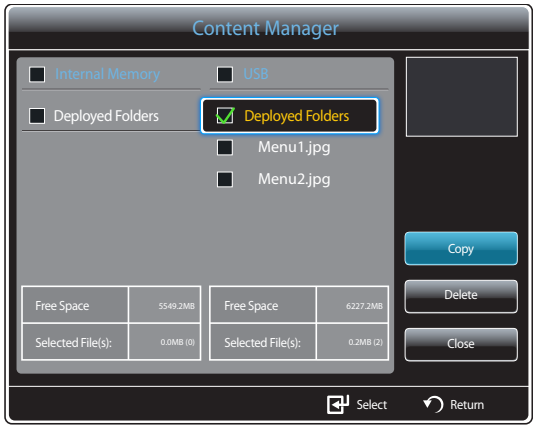


Content Manager

Copying content

1 Select **Content Manager** in the **MagicInfo Premium S** menu screen.

2 Select the content you want to copy.



- If content under **Internal Memory** is selected: You can copy the content under **Internal Memory** to **USB** memory.
- If content under **USB** is selected: You can copy the content under **USB** memory to **Internal Memory**.
  - Selecting content under **Internal Memory** and **USB** memory at the same time will disable copying.
  - If **Internal Memory** / **USB** memory contains content or schedule folders distributed from MagicInfo Author/Schedule to the USB memory device, **Deployed Folders** appears above **Internal Memory** / **USB** memory.
  - If a distributed folder is copied to **USB** memory that already contains a distributed folder, content and schedule folders in the existing distributed folder will be deleted first before the new folder is copied.

3 Next, select **Copy**.

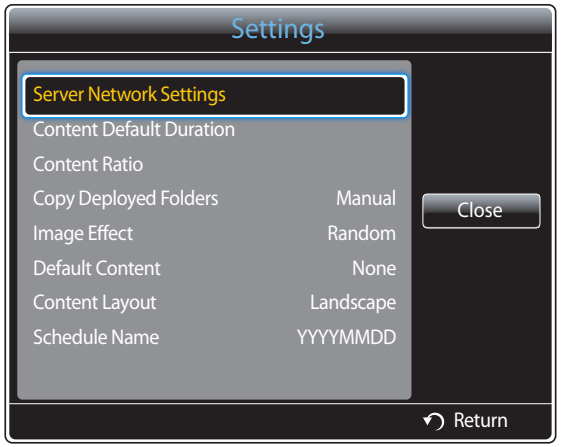
Deleting content

1 Select **Content Manager** in the **MagicInfo Premium S** menu screen.

2 Select the content you want to delete. Next, select **Delete**.

- Content under **Internal Memory** and **USB** memory can be deleted at the same time.

Settings



– The displayed image may differ depending on the model.

Server Network Settings

To run **MagicInfo Premium S**, connect to a network.

Server

Enter the **MagicInfo Premium S** server settings.

- If the **SSL** option is enabled, the server is configured to use **https** and data transfer is encrypted.

— Enter the server IP address and port number. Use 7001 as the port number. (If unable to connect to the server using port number 7001, check with your server administrator to find the correct port number and then change the port number.)

FTP Mode

Specify the FTP operating mode.

- **Active** / **Passive**

Default Storage

Specify the location you want to save content (downloaded from the server) to.

- **Internal Memory**: Save the content to the internal memory of the product.
- **USB**: Save the content to USB memory.

— If a **Network Schedule** is running when USB memory is not connected, the default content will run.

Content Default Duration

Specify the duration to play content.

— **Image Viewer Time**, **Template Viewer Time**, **Doc Viewer Time**, **PPT Viewer Time**, **PDF Viewer Time**, **Flash Viewer Time**

— The duration must be at least 5 seconds.

Content Ratio

Specify the display aspect ratio by type when playing content.

— **Image Ratio**, **Doc Ratio**, **PPT Ratio**, **PDF Ratio**, **Video Ratio**

- **Original**: Display content with the original size.
- **Full Screen**: Display content in full screen.

Copy Deployed Folders

Select whether to automatically copy content from the **USB** memory device to **Internal Memory** when the **USB** memory device is connected to the set after content is distributed from MagicInfo Author/Schedule to the **USB** memory device.

- **Manual** / **Auto**

Image Effect

Configures the image transition effects.

- **Fade1**, **Fade2**, **Blind**, **Spiral**, **Checker**, **Linear**, **Stairs**, **Wipe**, **Random**, **None**

Default Content

Specify the content to play by default when launching **MagicInfo Premium S**.

- Content of up to 20MB is supported for **Default Content**.

Content Layout

Switch the orientation of playing content to **Landscape** or **Portrait** mode.

- **Landscape** / **Portrait**

— If **Content Layout** is **Portrait** view, it does not support VP8 video codec.

Schedule Name

Select a schedule title format when creating a local schedule.

- **YYYYMMDD** / **YYYYDDMM** / **DDMMYYYY**

Safely Remove USB

Safely removes USB memory

Delete All Content

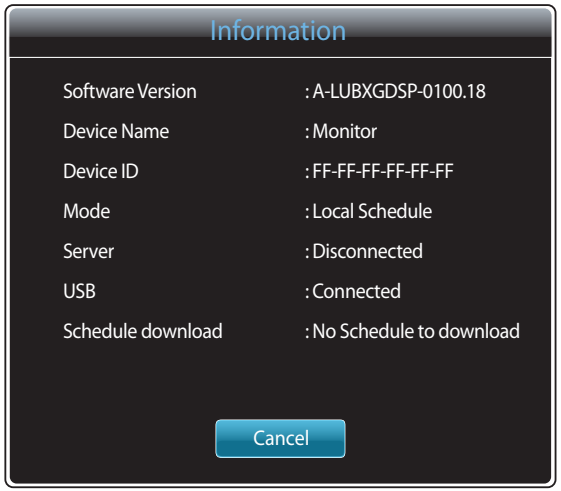
Delete all the content files in **Internal Memory**.

Reset Settings

Restore all the values under **Settings** to the default when the product was purchased.

When Content is Running

Viewing the details of the content that is running

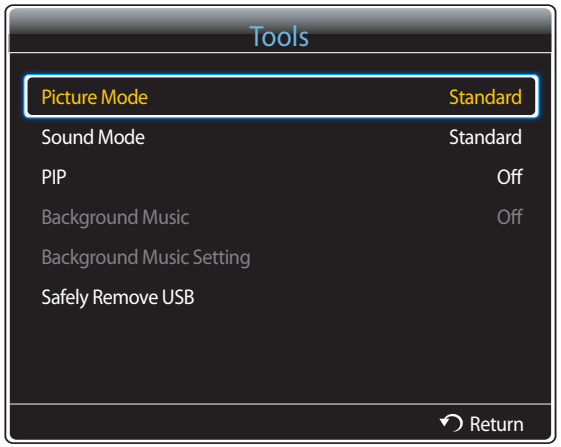


– The displayed image may differ depending on the model.

Press the **INFO** button on the remote control.

- **Software Version**: Displays the software version of a device
- **Device Name**: Displays the name of a device recognized by the server
- **Device ID**: Displays the original identification number of a device
- **Mode**: Displays the current operating mode (**Network Schedule**, **Local Schedule**, **Template Player**, **Internal AutoPlay** or **USB AutoPlay**) of **MagicInfo Premium S Player**
- **Server**: Displays the connection status (**Connected**, **Disconnected** or **Non-Approval**) of the server
- **USB**: Displays the connection status of a USB device
- **Schedule download**: Displays the progress of a network schedule being downloaded from the server

Changing the settings for the content that is running



– The displayed image may differ depending on the model.

Press the **TOOLS** button on the remote control.

You can change the **Picture Mode** or **Sound Mode** setting or safely remove a USB device (**Safely Remove USB**) while content is playing by pressing the **TOOLS** button on the remote control.

- **Picture Mode** (**Dynamic** / **Standard** / **Natural** / **Movie**)
  Customizes the screen settings for the content currently playing
- **Sound Mode** (**Standard** / **Music** / **Movie** / **Clear Voice** / **Amplify**)
  Customizes the audio settings for the content currently playing
- **PIP** (**Off** / **On**)
  Activate or deactivate the PIP function.
- **Background Music** (**Off** / **On**)
  Activate or deactivate the **Background Music** function.
- **Background Music Setting** (**Shuffle** / **Play** / **Cancel** / **Deselect**)
  Set music files saved in the **Internal Memory** as **Background Music**.

  — To enable the **Background Music Setting**, make sure at least one MP3 file is saved in **Internal Memory**.
- **Safely Remove USB**
  Safely removes USB memory

Chapter 13
MagicInfo Videowall S

– To launch **MagicInfo Videowall S**, select **MagicInfo Videowall S** for the **Player Mode** on the **System**.

A license needs to be purchased to use **MagicInfo Videowall S**.

To download the software, go to the Samsung homepage at http://www.samsunglfd.com.

To purchase a license , contact a Customer Server Center.

File Formats Compatible with MagicInfo Videowall S Player

Read before using MagicInfo Videowall S Player

MagicInfo Videowall S can only configure and control content files via **VideoWall Console**.

- Refer to the **VideoWall Console** user manual for further details.
- To display the menu selection window, press **RETURN** on the remote control.

— See page 167 for further details on supported codecs.

Video

- 3D video is not supported.
- Content with a resolution larger than the resolution specified in the table above is not supported.
- Video content with a Bit rate or Frame rate larger than the rate specified in the table above can cause choppy video during playback.
- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Some USB/digital camera devices may not be compatible with the player.
- Supports up to H.264, Level 4.1
- H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported.
- For all Video codecs except MVC, VP8, VP6:
  - Below 1280 x 720: 60 frame max
  - Above 1280 x 720: 30 frame max
- GMC 2 or higher is not supported.
- Supports only BD MVC Spec.
- Some codecs may not be supported in dual playback mode, where two video files play simultaneously, and portrait playback mode.

Image

- Compatible image file format : Jpeg, bmp, png
- Supported maximum resolution : 15,360 x 8,640
  - A higher resolution image may take longer to display on the screen.

Restrictions

- Only one video (**Videos**) file can be played per client.
  - Different content files can be played on the displays of a video wall.
    Two video (**Videos**) files cannot be played on a single display of a video wall.

Available

Available

Not available

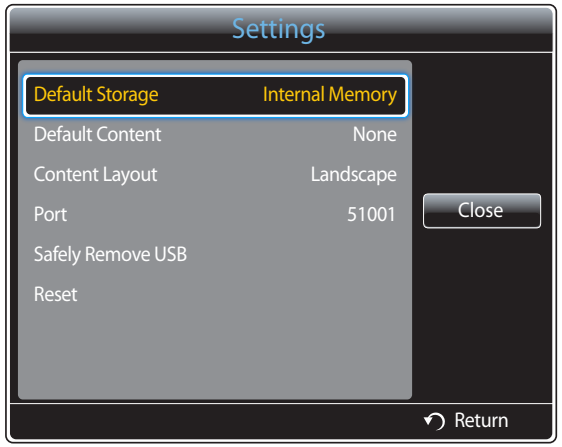
MagicInfo Videowall S

MENU → **Support** → **Contents Home** → **MagicInfo Videowall S** → **ENTER** → **RETURN**

— To launch **MagicInfo Videowall S**, select **MagicInfo Videowall S** for the **Player Mode** on the **System**.

— Press the **MagicInfo Lite/S** button on the remote control.

Settings



– The displayed image may differ depending on the model.

Default Storage

Specify the location you want to save content (downloaded from the server) to.

- **Internal Memory**: Save the content to the internal memory of the product.
- **External**: Save the content to USB memory.

Default Content

Configure the settings for the content that will play by default.

Content Layout

Switch the orientation of playing content to **Landscape** or **Portrait** mode.

- **Landscape** / **Portrait**

— If **Content Layout** is **Portrait** view, it does not support VP8 video codec.

Port

View the port number of the server. Use 51001 as the port number.

- If unable to connect to the server using port number 51001, check with your server administrator to find the correct port number and then change the port number.

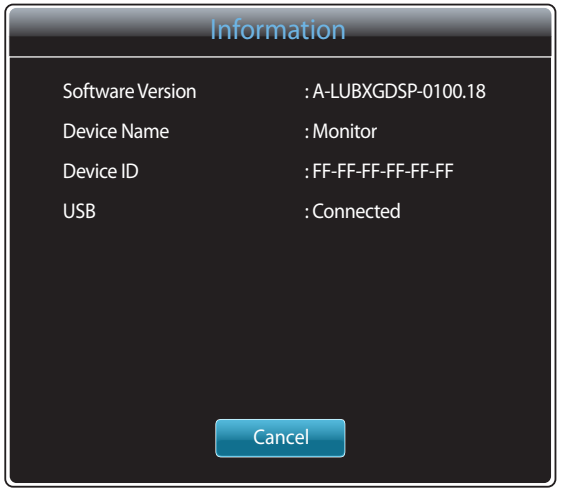
Safely Remove USB

Safely removes USB memory

Reset

Restore all the values under **Settings** to the default when the product was purchased.

When Content is Running



– The displayed image may differ depending on the model.

Press the **INFO** button on the remote control.

- **Software Version**: Displays the software version of a device
- **Device Name**: Displays the name of a device recognized by the server
- **Device ID**: Displays the original identification number of a device
- **USB**: Displays the connection status of a USB device

Chapter 14
Troubleshooting Guide

Requirements Before Contacting Samsung Customer Service Center

Before calling Samsung Customer Service Center, test your product as follows. If the problem persists, contact Samsung Customer Service Center.

Testing the Product

Check if your product is operating normally by using the product test function.

If the screen remains blank while the power LED blinks even when the product is correctly connected to a PC, perform product testing.

1 Power off both the PC and product.

2 Disconnect all the cables from the product.

If the screen remains blank, check the PC system, video controller and cable.

3 Power on the product.

4 If **No Signal** is displayed, the product is operating normally.

Checking the Resolution and Frequency

Not Optimum Mode will briefly be displayed if a mode that exceeds a supported resolution is selected (refer to Supported Resolutions).

Check the followings.

Installation issue (PC mode)

The screen keeps switching on and off.	Check the cable connection between the product and PC, and ensure the connection is secure.
Blank spaces are found on all four sides of the screen when an HDMI or HDMI-DVI cable is connected to the product and PC.	The blank spaces found on the screen have nothing to do with the product. Blank spaces on the screen are caused by the PC or graphics card. To resolve the problem, adjust the screen size in the HDMI or DVI settings for the graphics card. If the graphics card settings menu does not have an option to adjust the screen size, update the graphics card driver to the latest version. (Please contact the graphics card or computer manufacturer for further details about how to adjust the screen settings.)
PC is shown in Source when a PC is not connected.	PC is always shown in Source irrespective of whether or not a PC is connected.

Screen issue

The power LED is off. The screen will not switch on.	Make sure that the power cord is connected.
No Signal is displayed on the screen (refer to "Connecting to a PC").	Check that the product is connected correctly with a cable
	Check that the device connected to the product is powered on.
Not Optimum Mode is displayed.	This message is displayed when a signal from the graphics card exceeds the product's maximum resolution and frequency.
	Refer to the Standard Signal Mode Table and set the maximum resolution and frequency according to the product specifications.
The images on the screen look distorted.	Check the cable connection to the product

Screen issue

The screen is not clear. The screen is blurry.	Adjust **Coarse** and **Fine**.
	Remove any accessories (video extension cable, etc) and try again.
	Set the resolution and frequency to the recommended level.
The screen appears unstable and shaky.	Check that the resolution and frequency of the PC and graphics card are set within a range compatible with the product. Then, change the screen settings if required by referring to the Additional Information on the product menu and the Standard Signal Mode Table.
There are shadows or ghost images left on the screen.	
The screen is too bright. The screen is too dark.	Adjust **Brightness** and **Contrast**.
Screen color is inconsistent.	Go to **Picture** and adjust the **Color Space** settings.
White does not really look white.	Go to **Picture** and adjust the **White Balance** settings.
There is no image on the screen and the power LED blinks every 0.5 to 1 second.	The product is in power-saving mode.
	Press any key on the keyboard or move the mouse to return to the previous screen.
The product will turn off automatically.	Go to **System** and make sure **Sleep Timer** is set to **Off**.
	If a PC is connected to the product, check the power status of the PC.
	Make sure the power cable is connected properly to the product and power outlet.
	If the signal from a connected device is not detected, the product automatically turns off after 10 to 15 minutes.
Picture quality of the product is different from the dealer shop where it was purchased.	Use an HDMI cable to obtain high-definition (HD) picture quality.

Screen issue

The screen display does not look normal.	Encoded video content may cause the display to appear corrupted in scenes featuring fast moving objects such as in a sports event or action video.
	Low signal level or low picture quality may cause the display to appear corrupted. This does not mean the product is defective.
	A cell phone within a distance of one-meter radius may cause static on analog and digital products.
The brightness and color do not look normal.	Go to **Picture** and adjust the screen settings such as **Picture Mode**, **Color**, **Brightness** and **Sharpness**. — Refer to page 91 for details about the **Picture** menu.
	Go to **System** and adjust the **Energy Saving** settings. — Refer to page 124 for details about the **System** menu.
	Reset the screen settings to the default settings. — Refer to page 91 for details about the **Reset Picture** menu.
Broken lines are displayed on the edges of the screen.	If **Picture Size** is set to **Screen Fit**, change the setting to **16:9**.
Lines (red, green or blue) are displayed on the screen.	These lines are displayed when there is a defect in DATA SOURCE DRIVER IC on the monitor. Contact a Samsung Service Center to resolve the issue.
The display looks unstable and then freezes.	The screen may freeze when a resolution other than the recommended resolution is used or if the signal is not stable. To resolve the issue, change the PC resolution to the recommended resolution.
The screen cannot be displayed in full screen.	A scaled SD (4:3) content file can cause black bars on both sides of an HD channel screen.
	A video with an aspect ratio different from the product can cause black bars at the top and bottom of the screen.
	Change the screen size setting to full screen on the product or source device.

Sound issue

There is no sound.	Check the connection of the audio cable or adjust the volume.
	Check the volume.
The volume is too low.	Adjust the volume.
	If the volume is still low after turning it up to the maximum level, adjust the volume on your PC sound card or software program.
Video is available but there is no sound.	If an HDMI cable is connected, check the audio output settings on the PC.
	Go to **Sound** and change **Speaker Select** to **Internal**.
	If a source device is used • Make sure the audio cable is properly connected to the audio input port on the product. • Check the audio output settings for the source device. (For example, if an HDMI cable is connected to the monitor, the audio setting for the cable box may need to be changed to HDMI.)
	If a DVI-HDMI cable is used, a separate audio cable is required.
	If the product has a headphone port, make sure nothing is connected to it.
	Reconnect the power cable to the device and then reboot the device.
There is static coming from the speakers.	Check the cable connection. Make sure a video cable is not connected to an audio input port.
	Check the signal strength after connecting a cable.
	Low signal level can cause corrupted sound.

Sound issue

There is audible sound when the volume is muted.	When **Speaker Select** is set to **External**, the volume button and mute function are disabled. Adjust the volume for the external speakers.
	Audio settings for main speakers are separate from the internal speakers on the product. Changing or muting the volume on the product does not affect an external amplifier(decoder).
Sound from the monitor does not change after Sound Mode is changed.	Audio settings for main speakers are separate from the internal speakers on the product. Audio settings on a source device do not affect the internal speaker settings on the product.
There is an echo sound coming from the speakers.	Different decoding speeds between the product speakers and external speakers can cause an echo. In this case, set **Speaker Select** to **External**.

Remote control issue

The remote control does not work.	Make sure that the batteries are correctly in place (+/-).
	Check if the batteries are flat.
	Check for power failure.
	Make sure that the power cord is connected.
	Check for any special lighting or neon signs switched on in the vicinity.

Source device issue

A beeping sound is heard when my PC is booting.	If a beeping sound is heard when your PC is booting, have your PC serviced.

Other issue

Caption is grayed out and not selectable.	**Caption** can be enabled from a source device. — Refer to page 125 for details about the **Caption** menu.
The product smells like plastic.	The plastic smell is normal and disappears over time.
The monitor appears tilted.	Remove and then attach the stand again to the product.
Audio or video cuts out intermittently.	Check the cable connection and connect it again if required.
	Using a very hard or thick cable may corrupt audio and video files. Make sure cables are flexible enough to ensure durability. When mounting the product onto a wall, it is recommended to use right-angle cables.
Small particles are found on the edges of the product.	The particles are part of the product design. The product is not defective.
The PIP menu is not available.	The menu is enabled or disabled depending on the **Source** mode. — Refer to page 128 for details about the **PIP** menu.
When I try to change the PC resolution, a message "The defined resolution is not currently supported." appears.	The message "**The defined resolution is not currently supported.**" appears if the input source resolution exceeds the maximum resolution of the display. To resolve the issue, change the PC resolution to a resolution supported on the display.
There is no sound from the speakers in HDMI mode when a DVI-HDMI cable is connected.	DVI cables do not transmit sound data. Make sure to connect the audio cable to the correct input jack to enable audio.
HDMI Black Level is not functioning properly on an HDMI device with YCbCr output.	This function is available only when a source device, such as a DVD player and STB, is connected to the product via an HDMI (RGB signal) cable.

Other issue

There is no sound in HDMI mode.

Displayed picture colors may not look normal. Video or sound may not be available. This can occur if a source device that only supports an older version of the HDMI standard is connected to the product.

If these issues occur, connect an audio cable along with the HDMI cable.

Some PC graphics cards may not automatically recognize HDMI signals that do not include sound. In this case, manually select a sound input.

	Sound input	Screen mode
PC	Auto	PC settings
DVI PC	Audio In(Stereo ports)	PC settings

The IR sensor is not functioning.

Make sure the sensor light turns on when a button is pressed on the remote control.

- If the sensor light does not turn on, turn the power switch off and then on again on the back of the product.
  (The power LED lights up red when the screen is switched off.)
  If the sensor light still does not turn on after the power switch is turned off and then on again, an internal jack may be disconnected.
  Contact your nearest service center to have the product serviced.

- If the sensor light that is on does not flash red when a button is pressed on the remote control, the IR sensor may be defective.
  Contact your nearest service center to have the product serviced.

- If there is no change on the screen when a button is pressed on the remote control although the sensor light flashes red, the mainboard may be defective.
  Contact your nearest service center to have the product serviced.

In power-saving mode, when the input source is DisplayPort, PC display settings cannot be saved.

Go to **System** → **General** and set **Max. Power Saving** to **Off**. Alternatively, configure the PC display output settings again. Ensure the set is turned on.

When booting the PC with the input source set to DisplayPort, the BIOS and booting screens do not appear.

Boot the PC when the set is turned on or when the input source is not **DisplayPort**.

Q & A

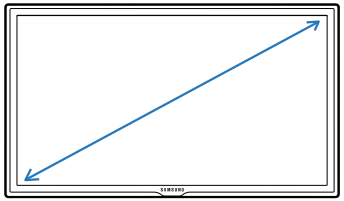
Refer to the user manual for your PC or graphics card for further instructions on adjustment.

Question	Answer
How can I change the frequency?	Set the frequency on your graphics card. • Windows XP: Go to **Control Panel** → **Appearance and Themes** → **Display** → **Settings** → **Advanced** → **Monitor** and adjust the frequency in **Monitor Settings**. • Windows ME/2000: Go to **Control Panel** → **Display** → **Settings** → **Advanced** → **Monitor** and adjust the frequency in **Monitor Settings**. • Windows Vista: Go to **Control Panel** → **Appearance and Personalization** → **Personalize** → **Display Settings** → **Advanced Settings** → **Monitor** and adjust the frequency in **Monitor Settings**. • Windows 7: Go to **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust resolution** → **Advanced Settings** → **Monitor** and adjust the frequency in **Monitor Settings**. • Windows 8: Go to **Setting** → **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust resolution** → **Advanced Settings** → **Monitor** and adjust the frequency in **Monitor Settings**.
How can I change the resolution?	• Windows XP: Go to **Control Panel** → **Appearance and Themes** → **Display** → **Settings** and adjust the resolution. • Windows ME/2000: Go to **Control Panel** → **Display** → **Settings** and adjust the resolution. • Windows Vista: Go to **Control Panel** → **Appearance and Personalization** → **Personalize** → **Display Settings** and adjust the resolution. • Windows 7: Go to **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust Resolution** and adjust the resolution. • Windows 8: Go to **Settings** → **Control Panel** → **Appearance and Personalization** → **Display** → **Adjust Resolution** and adjust the resolution.

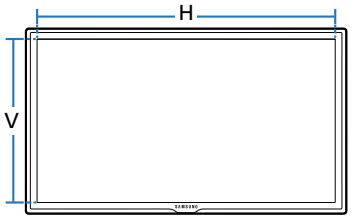
Question	Answer
How do I set powersaving mode?	• Windows XP: Set power-saving mode in **Control Panel → Appearance and Themes → Display → Screen Saver Settings** or BIOS SETUP on the PC. • Windows ME/2000: Set power-saving mode in **Control Panel → Display → Screen Saver Settings** or BIOS SETUP on the PC. • Windows Vista: Set power-saving mode in **Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings** or BIOS SETUP on the PC. • Windows 7: Set power-saving mode in **Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings** or BIOS SETUP on the PC. • Windows 8: Set power-saving mode in **Settings → Control Panel → Appearance and Personalization → Personalize → Screen Saver Settings** or BIOS SETUP on the PC.

Chapter 15
Specifications

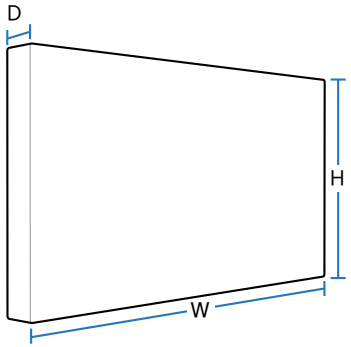
1 Size



2 Display area



3 Dimensions (W x H x D)



General

Model Name		UE46C	UE55C
Panel	**Size**	46 Class (45.9 Inches / 116 cm)	55 Class (54.6 Inches / 138 cm)
	Display area	1018.08 mm (H) x 572.67 mm (V) / 40.1 inches (H) x 22.5 inches (V)	1209.6 mm (H) x 680.4 mm (V) / 47.6 inches (H) x 26.8 inches (V)
Dimensions (W x H x D)		1030.3 x 584.8 x 29.9 mm / 40.6 x 23.0 x 1.2 inches	1221.8 x 692.6 x 29.9 mm / 48.1 x 27.3 x 1.2 inches
Weight (without stand)		11.6 kg / 25.5 lbs	15.4 kg / 33.9 lbs
VESA		400 x 400 mm / 15.7 x 15.7 inches	400 x 400 mm / 15.7 x 15.7 inches

Model Name		UE46C / UE55C
Display Color		16.7 M
Synchronization	Horizontal Frequency	30 ~ 81 kHz
	Vertical Frequency	48 ~ 75 Hz
Resolution	Optimum resolution	1920 x 1080 @ 60 Hz
	Maximum resolution	1920 x 1080 @ 60 Hz
Maximum Pixel Clock		148.5 MHz (Analog, Digital)
Audio Output		10 W X 2
Power Supply		This product uses 100 to 240V. Refer to the label at the back of the product as the standard voltage can vary in different countries.
USB		1 DOWN
Signal connectors	Input	PC D-Sub, DVI, HDMI1, HDMI2, DP, Audio In, RJ45, RS232C In, USB1(Media Player), External Ambient Sensor
	Output	DP Out, Audio Out, RS232C Out, IR Out
Environmental considerations	Operating	Temperature : 32 °F ~ 104 °F (0 °C ~ 40 °C) Humidity : 10 % ~ 80 %, non-condensing
	Storage	Temperature : -4 °F ~ 140 °F (-20 °C ~ 45 °C) Humidity : 5 % ~ 95 %, non-condensing

— Plug-and-Play

This monitor can be installed and used with any Plug-and-Play compatible systems. Two-way data exchange between the monitor and PC system optimizes the monitor settings.

Monitor installation takes place automatically. However, you can customize the installation settings if desired.

— Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may appear brighter or darker on the panel. This does not affect product performance.

— This device is a Class A digital apparatus.

PowerSaver

The power-saving function of this product reduces power consumption by switching off the screen and changing the color of the power LED if the product is not used for a specified period of time. The power is not turned off in power-saving mode. To switch the screen back on, press any key on the keyboard or move the mouse. Power-savign mode only functions when the product is connected to a PC with a power-saving function.

PowerSaver		Normal Operation			Power saving mode	Power off	Power off (Power Button off)
		Rating	Typical	Max			
Power Indicator		On			Blinking	On	Off
Power Consumption	UE46C	120 Watts	89 Watts	132 Watts	0.5 Watts	0.5 Watts	0 Watts
	UE55C	140 Watts	103 Watts	154 Watts	0.5 Watts	0.5 Watts	0 Watts

— The displayed power consumption level can vary in different operating conditions or when settings are changed.

— SOG(Sync On Green) is not supported.

— To reduce the power consumption to 0, turn off the switch at the back or disconnect the power cord. Disconnect the power cable if you will not be using the product for an extended period of time (during vacation, etc.).

Preset Timing Modes

— This product can be set to only one resolution for each screen size to obtain the optimum picture quality due to the nature of the panel. Using a resolution other than the specified resolution may degrade the picture quality. To avoid this, it is recommended that you select the optimum resolution specified for your product.

Check the frequency when you exchange a CDT product (connected to a PC) for an LCD product. If the LCD product does not support 85Hz, change the vertical frequency to 60Hz using the CDT product before you exchange it with the LCD product.

The screen will automatically be adjusted if a signal that belongs to the following standard signal modes is transmitted from your PC. If the signal transmitted from the PC does not belong to the standard signal modes, the screen may be blank with the power LED on. In such a case, change the settings according to the following table by referring to the graphics card user manual.

- Horizontal Frequency
  The time required to scan a single line from the left to the right side of the screen is called a horizontal cycle. The reciprocal number of a horizontal cycle is called horizontal frequency. Horizontal frequency is measured in kHz.
- Vertical Frequency
  The product displays a single image multiple times per second (like a fluorescent light) to display what the viewer sees. The rate of a single image being displayed repeatedly per second is called vertical frequency or refresh rate. Vertical frequency is measured in Hz.

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+/+
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-

Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1152 x 864	67.500	75.000	108.000	+/+
VESA, 1152 x 870	68.681	75.062	100.000	-/-
VESA, 1280 x 720	45.000	60.000	74.250	+/+
VESA, 1280 x 800	49.702	59.810	83.500	-/+
VESA, 1280 x 1024	63.981	60.020	108.000	+/+
VESA, 1280 x 1024	79.976	75.025	135.000	+/+
VESA, 1366 x 768	47.712	59.790	85.500	+/+
VESA, 1440 x 900	55.935	59.887	106.500	-/+
VESA, 1600 x 900	60.000	60.000	108.000	+/+
VESA, 1680 x 1050	65.290	59.954	146.250	-/+
VESA,1920 x 1080	67.500	60.000	148.500	+/+

Chapter 16
Appendix

Contact SAMSUNG WORLD WIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

NORTH AMERICA

U.S.A	1-800-SAMSUNG (726-7864)	http://www.samsung.com/us
CANADA	1-800-SAMSUNG (726-7864)	http://www.samsung.com/ca (English) http://www.samsung.com/ca_fr (French)

LATIN AMERICA

ARGENTINE	0800 333 3733	http://www.samsung.com.ar
BOLIVIA	800-10-7260	http://www.samsung.com
BRAZIL	0800-124-421 (Demais cidades e regiões) 4004-0000 (Capitais e grandes centros)	http://www.samsung.com.br
CHILE	800-SAMSUNG (726-7864)	http://www.samsung.com/cl
COLOMBIA	01 8000 112 112 Bogotá 600 12 72	http://www.samsung.com/co

LATIN AMERICA

COSTA RICA	0-800-507-7267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
DOMINICA	1-800-751-2676	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
ECUADOR	1-800-10-7267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
EL SALVADOR	800-6225	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
GUATEMALA	1-800-299-0013	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
HONDURAS	800-27919267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
JAMAICA	1-800-234-7267	http://www.samsung.com
NICARAGUA	001-800-5077267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
MEXICO	01-800-SAMSUNG (726-7864)	http://www.samsung.com
PANAMA	800-7267	http://www.samsung.com/latin (Spanish) http://www.samsung.com/latin_en (English)
PARAGUAY	009 800 542 0001	http://www.samsung.com.py
PERU	0-800-777-08	http://www.samsung.com/pe
PUERTO RICO	1-800-682-3180	http://www.samsung.com

LATIN AMERICA

TRINIDAD & TOBAGO	1-800-SAMSUNG (726-7864)	http://www.samsung.com
URUGUAY	000 405 437 33	http://www.samsung.com
VENEZUELA	0-800-100-5303	http://www.samsung.com/ve

Responsibility for the Pay Service (Cost to Customers)

— When the service is requested, in spite of in warranty, we may charge you for a visit from a service technician in the following cases.

Not a product defect

Cleaning of the product, Adjustment, Explanation, Re-installation and etc.

- If a service technician gives instructions on how to use product or simply adjusts options without disassembling product.
- If a defect is caused by external environmental factors (Internet, Antenna, Wired Signal, etc.)
- If a product is reinstalled or devices are connected additionally after installing the purchased product for the first time.
- If a product is reinstalled to move to a different spot or to move to a different house.
- If customer requests instructions on how to use because of another company's product.
- If customer requests instructions on how to use the network or another company's program.
- If customer requests software installation and setup for the product.
- If a service technician removes/cleans dusts or foreign materials inside of the product.
- If customer requests an installation additionally after purchasing a product through home-shopping or online.

A Product damage caused by customer's fault

Product damage caused by customer's mishandling or wrong repair

If a product damage is caused by;

- External impact or drop.
- Use of supplies or separatly sold product unspecified by Samsung.
- Repair from a person besides an engineer of outsourcing service company or partner of Samsung Electronics Co., Ltd.
- Remodeling or repairing the product by customer.
- Using it with incorrect voltage or non-authorised electrical connections.
- Not following the "cautions" in User Manual.

Others

- If product fails by natural disaster. (lightning, fire, earthquake, flood damage, etc)
- If consumable components are all used up. (Battery, Toner, Fluorescent lights, Head, Vibrator, Lamp, Filter, Ribbon, etc.)

— If customer requests a service in case the product has no defect, service fee may be charged. So please read User Manual first.

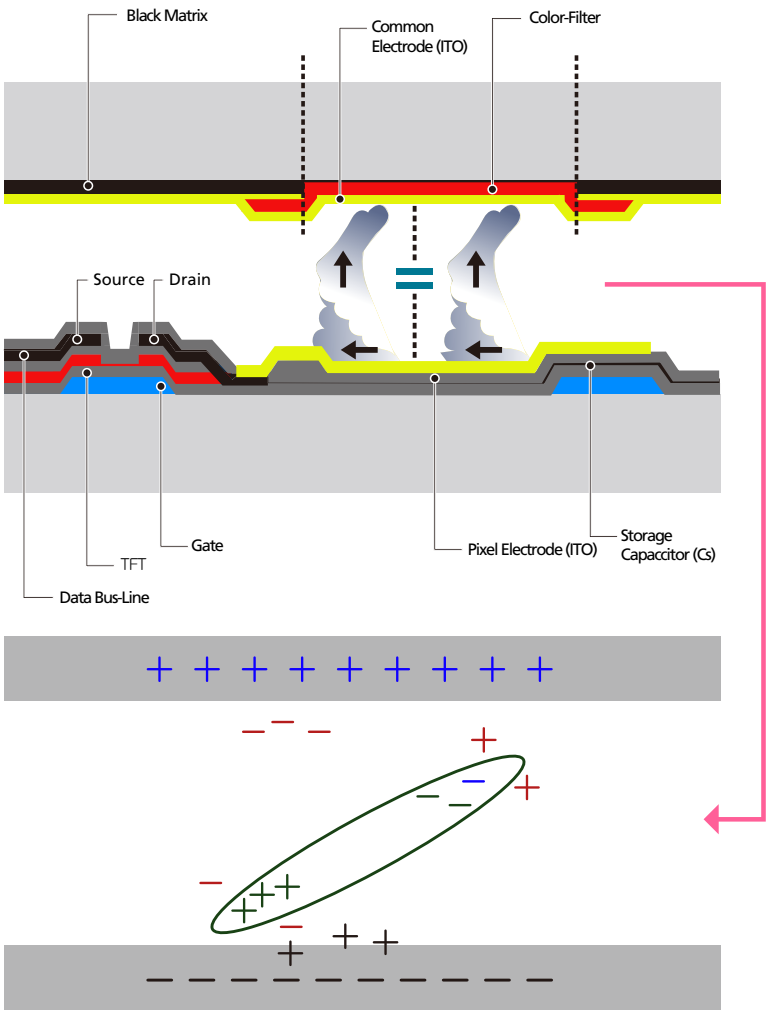
Optimum Picture Quality and Afterimage Burn-in Prevention

Optimum Picture Quality

- To enjoy the optimum picture quality, go to Control Panel on your PC and adjust the resolution and refresh rate as follows. The picture quality of TFT-LCDs may degrade if the optimum resolution is not selected.
  - Resolution: 1920 x 1080
  - Vertical frequency (refresh rate): 56 ~ 75 Hz

    Screen refresh rate: refers to the number of times a display image is refreshed per second.
- Due to the nature of the manufacturing of this product, approximately 1 pixel per million (1ppm) may be brighter or darker on the panel. This does not affect product performance.
  - The number of sub-pixels by panel type: 6,220,800
- Run **Auto Adjustment** to improve the picture quality. If noise is still found even after auto adjustment, adjust **Coarse** or **Fine**.
- Leaving the screen fixed on a stationary image for an extended period of time may cause afterimage burn-in or defective pixels.
  - Activate power-saving mode or a dynamic screen saver if you will not be using the product for an extended period of time.
- Unlike CDT monitors, TFT-LCD monitors (due to the nature of the panel) can be set to only one resolution to obtain the optimum picture quality. Therefore, setting a resolution other than the specified resolution may degrade the picture quality. To avoid this, it is recommended that you select the optimum resolution specified for your monitor.

Prevention of Afterimage Burn-in



What is afterimage burn-in?

Afterimage burn-in should not occur when the LCD panel is operating normally. Normal operation refers to a continuously changing video pattern. If the LCD panel displays a fixed pattern for an extended period of time (more than 12 hours), a slight voltage difference may occur between the electrodes in pixels that control the liquid crystals.

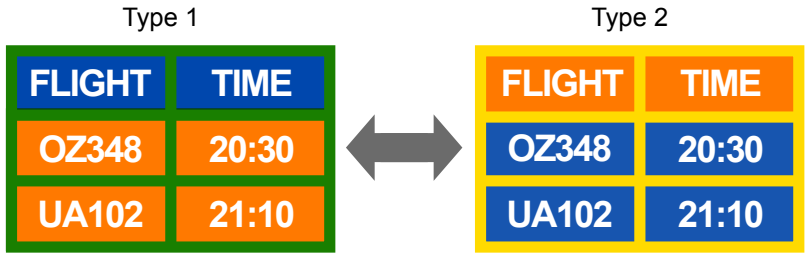
Such a voltage difference between electrodes increases with time and makes the liquid crystals thinner. When this occurs, a previous image can remain on the screen when the pattern changes. To prevent this, the accumulated voltage difference should be reduced.

— Afterimage burn-in should not occur when an LCD panel is operating in proper conditions.

Preventing afterimage burn-in

— The best way to protect the product from afterimage burn-in is switching the power off or setting the PC or system to run a screen saver when not in use. Also, Warranty service may be limited depending on instruction guide.

- Powering Off, Screen Saver and Power Saving Mode
  - Power off the product for 4 hours after using it for 20 hours.
  - Power off the product for 2 hours after using it for 12 hours.
  - Go to Display Properties > Power Supply on your PC and set the product to power off as required.
  - Using a screen saver is recommended.
    It is best to use a single-color or moving-image screen saver.
- Regular color Change
  - Use 2 colors
    Switch between 2 colors every 30 minutes as shown above.



- Avoid combinations of a text color and background color of contrasting brightness.
  - Avoid using grey as it may contribute to afterimage burn-in.
  - Avoid using colors of contrasting brightness (black and white; grey).

- Brightness: refers to the lightness or darkness of a color which varies depending on the amount of light emitted.

- Regular Text color Change
  - Use bright colors of similar brightness.
    Interval: Change text color and background color every 30 minutes

  - Move and change text every 30 minutes as shown below.

  - Regularly display a moving image along with a logo.
    Interval: Display a moving image along with a logo for 60 seconds after using for 4 hours.

License

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Covered by one or more of the following U.S. patents: 7,295,673; 7,460,668; 7,515,710; 7,519,274

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Terminology

480i / 480p / 720p / 1080i / 1080p_____ Each of the scanning rates above refers to the number of effective scanning lines that decides the screen resolution. The scanning rate may be indicated in i (interlaced) or p (progressive), depending on the scanning method.

- Scanning

Scanning refers to a process of sending pixels that form an image progressively. A larger number of pixels will deliver a clearer and more vivid picture.

- Progressive

In progressive scan mode, all lines of pixels are scanned one by one (progressively) on the screen.

- Interlaced

In interlaced scan mode, every other line of pixels is scanned from top to bottom first and then the remaining lines of pixels (that were not scanned) are scanned.

Non-interlace Mode and Interlace Mode_____ Non-interlace mode (progressive scan) displays a horizontal line from the top to the bottom of a screen progressively. Interlace mode displays the odd number lines first and the even number lines next. Non-interlace mode is mainly used in monitors as it produces screen clarity and interlace mode is mainly used in TVs.

Dot Pitch_____ The screen consist of red, green and blue dots. A shorter distance between the dots produces a higher resolution. Dot pitch refers to the distance between the shortest distance between dots of the same color. Dot pitch is measured in millimeters.

Vertical Frequency_____ The product displays a single image many times per second (like a fluorescent light that flickers) to display an image for a viewer to see. The rate of a single image being displayed repeatedly per second is called vertical frequency or refresh rate. Vertical frequency is measured in Hz.

E.g. 60Hz refers to a single image being displayed 60 times in one second.

Horizontal Frequency_____ The time required to scan a single line from the left to the right side of the screen is called a horizontal cycle. The reciprocal number of a horizontal cycle is called horizontal frequency. Horizontal frequency is measured in kHz.

Source_____ Input source refers to a video source device connected to the product such as a camcorder or video or DVD player.

Plug & Play_____ Plug & Play is a function that allows the automatic exchange of information between a monitor and PC to produce an optimum display environment. The product uses VESA DDC (international standard) to execute Plug & Play.

Resolution_____ Resolution is the number of horizontal dots (pixels) and vertical dots (pixels) that form a screen. It represents the level of display detail. A higher resolution enables more data to be displayed on the screen and is useful to perform multiple tasks simultaneously.

E.g. A resolution of 1920 X 1080 consists of 1,920 horizontal pixels (horizontal resolution) and 1,080 vertical pixels (vertical resolution).

DVD (Digital Versatile Disc)_____ DVD refers to a CD-sized mass storage disk where you can save multimedia (audio, video or game) applications using MPEG-2 video compression technology.

HDMI (High Definition Multimedia Interface)_____ It is an interface that can be connected to a digital audio source as well as a high-definition video source by using a single cable without compression.

Multiple Display Control (MDC)_____ MDC (Multiple Display Control) is an application that allows multiple display devices to be controlled simultaneously using a PC. Communication between a PC and monitor takes place using RS232C (serial data transmission) and RJ45 (LAN) cables.